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# ANNUAL REPORT

OF THE

## SOUTH AUSTRALIAN RAILWAY COMMISSIONERS

FOR

### THE YEAR 1890-91.

*Ordered by the House of Assembly to be printed, November 19th, 1891.*

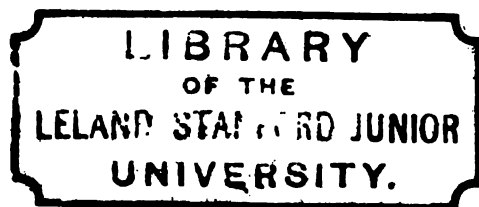
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# SOUTH AUSTRALIAN RAILWAYS.

SIR—

Railway Commissioners' Office, Adelaide, November 17th, 1891.

In pursuance of the provisions of the 50th section of the South Australian Railways Commissioners Act of 1887, we beg to submit our annual report for the year ending the 30th June, 1891.

The general results of the year's working, exclusive of the Palmerston and Pine Creek section, which is dealt with separately, are as under :—

REVENUE.			
	1891.	1890.	Increase.
Coaching .....	£341,267	£316,396	£24,871
Merchandise and live stock .....	646,500	540,682	105,818
Minerals .....	236,232	186,800	49,432
Total .....	<u>£1,223,999</u>	<u>£1,043,878</u>	<u>£180,121</u>

EXPENDITURE.			
	1891.	1890.	Increase.
Maintenance .....	£167,444	£145,652	£21,792
Locomotive and horse power .....	282,074	221,193	60,881
Traffic and general charges .....	167,661	162,160	5,501
Total .....	<u>£617,179</u>	<u>£529,005</u>	<u>£88,174</u>

For the year the net profit amounts to £606,820, or 5·32 per cent. upon a total capital of £11,398,839, which had been expended in the construction of railways and tramways and various wharves and jetties up to the 30th June last. Of this amount £10,962,614 has been raised by loans, and the balance of £436,225 has been expended out of the general revenue of the colony.

The working expenses for the year were 50·42 per cent. of the revenue, or ·26 per cent. less than the previous year. The increase of £180,121 over the previous year was earned at a cost of £88,174, or 49 per cent., which is less than the general cost of working for the year; results which, we trust, will be regarded as satisfactory.

Both the revenue and the expenditure were affected by the maritime strike, which prevailed for nine weeks in 1890. The loss in revenue was not less than £12,000, while the extra cost of fuel was £16,500.

Steps were taken to minimise the loss as far as possible by a reduction in the train mileage, and, although it was a period of great anxiety, we were able to make such arrangements as rendered it unnecessary for us to adopt what appeared at one time to be the only course open, viz., the discharge of a large number of the employes.

As this is the second time within three years that the working of the department has been most seriously prejudiced by the enhanced price we have had to pay for fuel, caused through the troubles that have arisen between the employer and the employed, we have considered it not only desirable, but absolutely necessary, to obtain such a stock of fuel as will be ample to see us safely through any difficulties of the kind if they should unfortunately arise.

We have entered into a contract for the supply of coal, on more favorable terms than before, for a period of three years from July 1st.

The progress of the railways during the last ten years will be readily seen from the following statement :—

Year ended June 30th.	Mileage Open.	Capital Cost of Miles Open.	Gross Earnings.	Working Expenses.	Net Revenue.	Percentage of Net Revenue on Capital Cost.
		£	£	£	£	
1882	945½	5,355,389	442,371	304,832	137,539	2·57
1883	972	5,923,159	485,660	333,790	151,870	2·56
1884	1,036½	6,663,614	557,055	372,187	184,868	2·77
1885	1,063½	7,242,605	659,104	403,800	255,303	3·53
1886	1,211½	7,533,500	549,092	370,653	178,438	2·37
1887	1,419½	8,461,274	595,192	382,306	212,886	2·52
1888	1,500	9,395,533	883,713	432,274	451,439	4·80
1889	1,543	9,720,078	887,065	493,326	393,739	4·05
1890	1,610½	10,234,749	1,043,878	529,005	514,874	5·03
1891	1,666	11,398,839	1,223,999	617,179	606,820	5·32

The average yearly return yielded by the railways for the above period was £3 11s. per cent. The



# SOUTH AUSTRALIAN RAILWAYS.

The amount of interest payable to the bondholders for the year on the loans raised for the construction of railways and not redeemed was £431,161, or at the rate of £4 1s. per cent. per annum. As the net revenue from the working of the railways amounted to £606,820, the balance available for the general revenue was £175,659, compared with £97,878 in the previous year.

Up to the present year the cost of the various works detailed below had been kept separate from the cost of the railways, but as they contribute to the railway revenue it is only right that their cost should be debited to the railway capital account. For the first time, therefore, the additional sum of £323,697 is included in this account.

	£
Kingston Jetty .....	39,627
Murray Bridge .....	120,967
Coalshed Wharf, Port Adelaide .....	34,727
Port Broughton Jetty .....	5,199
Port Pirie Wharf .....	16,346
Port Wakefield Wharf .....	11,191
Beachport Jetty .....	29,694
Walleroo Jetty .....	38,668
Victor Harbor Jetty Extension .....	27,278
	<u>£323,697</u>

Including the above, the amount added to the capital expenditure during the year was £531,681, of which £16,485 was taken from the general revenue, and the balance of £515,196 provided from loan.

In addition to the foregoing, the sum of £345,895, being the amount short raised in the floating of the loans, has for the first time been added to the capital account as representing a portion of the cost of the railways.

The number of passengers who travelled on the railways was 5,295,991, compared with 4,805,934 in the previous year, showing an increase of 490,057.

The following were the increases in tonnage as compared with the previous year, viz.:—General goods and livestock, 62,682; minerals, 75,674. In grain there was a decrease of 18,893.

The receipts per mile open were £747, as compared with £658 during the previous year, and per train mile 77·94d. as against 75·82d.

The working expenses per mile open were £377, as compared with £333 during the previous year; and per train mile, 39·30d. as against 38·42d.

The total miles run were 3,769,225, this being an increase over the previous year of 464,861 miles.

The amount received and included in the general revenue for the carriage of materials required for lines in course of construction was £6,730.

The following statement will no doubt prove interesting:—

*Amount of Ordinary, Preference, and Loan Capital.—Rate of Dividend and Average Working Expenses.*

		Ordinary.	Dividend.	Preference.	Dividend.	Loans.	Dividend.	Working Expenses per cent. to Total Receipts.	Receipts per Train Mile.	Cost of Working per Train Mile.
United Kingdom	Year ending Dec. 31, 1890.	£ 332,070,153	4·51	£ 332,889,003	4·13	£ 232,512,870	3·99	54·3	d. 58·61	d. 31·82
	Year ending June 30, 1891.	£ 111,398,839					5·32	50·42	d. 77·94	d. 39·30

The section of the Transcontinental Line between Warrina and Oodnadatta, 54 miles 34 chains in length, was opened for traffic on the 7th January last. The deviation at the River Neales is still being used; but the bridge is nearly completed, and will be ready for traffic by the 1st January, 1892.

The line having been practically completed to the point authorised by Parliament, it is now desirable that the future policy in regard to this line should be considered and settled. If the

intention of constructing the line as a new route through the continent, and to the country for the development of its pastoral and mineral resources, is to be that it is desirable that the rate of construction, the method of carrying out the means by which the requisite funds are to be provided, should receive early encouragement. Although the results so far derived from the extension of the line north of Hergott are encouraging, it would appear to be almost a matter of certainty that the section in question is not sufficient to cover the working expenses and the interest on the capital outlay if it is solely upon the traffic from the district which it serves. There is little reason to doubt that it has now bridged the worst of the poor country, and all the reports go to show that the present terminus it improves.

The purchase of the Largs Bay railway and jetty for the sum of £11,500 was completed by agreement on the 16th February, when the undertaking was handed over to us to work and

on the 1st May, upon a guarantee from the passengers principally using the line and the owners, we undertook the working of the Grange railway for a period of six months; and, at the request, has since been extended for another six months, so that we may see the results of the working for the full period of twelve months.

The conversion of the Wallaroo and Moonta tramway into a locomotive line having been sanctioned by Parliament, the work was commenced on the 1st June, 1891, and will be completed by the 1st of December.

The new locomotive works and offices at Islington are practically completed, and the work of the new station at Adelaide will be commenced forthwith.

The removal has been effected the ground will be available for the new Adelaide station, the removal of which is becoming more pronounced every year; and we venture to hope that Parliament will deal with the question—that this much-needed improvement, and the facilities for providing for the accommodation of the travelling public, will be authorised.

In consequence of the heavy expense attending the working of the traffic between Adelaide and Melbourne, and which amounted to no less than 85 per cent. of the receipts, we determined in 1890, to adopt the system of letting trucks upon the conditions specified in the tariff. We have fully justified our action, for the expenses of working have been reduced to 43 per cent. and the profit has increased by £5,000 over the previous year.

On the 1st January a revised tariff was brought into operation. The most careful consideration was given to every detail. In some instances the readjustment of unremunerative charges previously in force involved a slight increase; but the general effect was to reduce by about £15,000 per annum the cost to the freighter, altogether independent of the special arrangements made for the purpose of securing and developing the important traffic of the Barrier district.

The gross receipts from the Barrier traffic have been as under:—

Year ending	Tonnage.	Receipts.
June 30th, 1889 .....	135,876	£295,652
" 1890 .....	226,777	383,681
" 1891 .....	333,880	517,587

In May last a contract was entered into with Messrs. Martin & Co., Limited, of Gawler, for the manufacture of ninety-two engines at a cost of £309,266, to be delivered in five years.

Their previous contract was for the manufacture of fifty-two engines at a cost of £167,700, which were to be delivered within seven years from May, 1888. Up to the 30th June six broad and ten narrow-gauge engines have been delivered; seven have since been delivered, and the Company has promised to complete seventeen more by the 30th June next.

From the 1st November we have announced that all ordinary return tickets issued at stations on the South Australian Railways, and through tickets to New South Wales and Queensland, are to be available for six months, a concession which we have no doubt will be fully appreciated by the travelling public.

We have during the year, in accordance with our usual practice, made a complete inspection of all the railways, and found that they were in all respects being thoroughly well maintained. The want of an efficient water supply on the North line between Gawler and Petersburg has been felt very much during the last year, and steps are now being taken to ensure an ample supply in the future. Various additional works for the better conduct of the traffic and the accommodation of the public will be carried out as soon as the requisite funds are placed at our disposal.

The increase of the cost of the maintenance of the railways is due principally to the repairs required on the section between Adelaide and Terowie. The traffic is now very heavy; and, with a view of still further improving the line, it is being re-sleepered and re-ballasted, and arrangements made for relaying the present rails with rails weighing 80lbs. to the yard. The road will then be fit to carry any engines and traffic that may be put upon it. We propose to defray the whole cost of these improvements out of working expenses.

From the above remarks it will be seen that the working of the South Australian railways for the past year has been attended with the most satisfactory financial results. We have endeavored to meet all reasonable requests on the part of the traders, to provide as efficient a train service as the traffic would warrant, and, whenever practicable, to accelerate and improve it. In



In some quarters efforts have been made, consequent upon the buoyancy of the railway revenue, to obtain a reduction of the tariff charges for the staple produce of the country; but we think it desirable to point out that the utmost caution is necessary in adopting any such line of action. Our revenue from that source depends upon the seasons, and if they are unfavorable the traffic must of necessity be seriously affected. When once, however, rates have been reduced, experience has shown that it is a matter of extreme difficulty to restore them to their former level. The expense of working the railways must also be taken into consideration; the tendency always being in the upward direction, for higher wages and shorter hours are, not alone in the railway world, the requests of the day.

While expenses are increasing it is only when a larger and profitable traffic can be developed that any reduction of rates and fares can be justified, and we submit that it should be left with us to say, after a thorough inquiry into all the facts and with a complete knowledge of all the details, what reductions should or should not be made.

We desire to bear testimony to the care and attention on the part of the officers and staff in the working of the traffic during the past year, and at the same time to state that we have every reason to believe that the cordial feeling we entertain towards them is fully reciprocated.

#### PALMERSTON AND PINE CREEK LINE.

The revenue for the year ending June 30th, 1891, was £15,310.

The working expenses for the same period amounted to £13,910, leaving a balance of £1,400 towards the payment of the interest charges.

The number of passengers who travelled was 4,515, and 2,426 tons of goods and livestock were carried.

The receipts were £105 and the working expenses £95 per average mile open.

The train miles run were 31,470.

The returns show a slight improvement over the previous year, and measures have been taken to still further reduce the expenses, which, in the maintenance department, have been heavier than usual in consequence of the damage caused by the floods in April last.

#### PUBLIC SUPPLY AND TENDER DEPARTMENT.

A report from the Chief Storekeeper upon the operations for the year is appended hereto.

We have every reason to believe that under the existing regulations the work of the department will be carried on satisfactorily, and that considerable financial benefit will be the result of having the supplies for the various Government departments under the control of the board, not only as regards their purchase, but the care, custody, and issue of the same.

Biennial contracts terminating on the 30th June, 1893, have been let for general supplies to Government departments. The opportunity has thus been given to merchants to make long-dated arrangements to the advantage of the Government, and the heavy outlay involved in the letting of contracts year by year has been reduced.

An examination of the stock has shown that there is a large quantity of stores that can never realise the price at which they have been standing for years in the books of the department. We propose, during the current year, to have a careful valuation made, and then make a recommendation to the Government as to the course which should be adopted to adjust the accounts in regard to the same and to put the whole matter on a sound financial basis.

Appended hereto are reports from the Engineer-in-Chief and Locomotive Engineer, together with the usual diagrams and statistics.

We have the honor to be,

Sir,

Your most obedient servants,

J. H. SMITH, Chairman.  
J. HILL, } Commissioners.  
A. S. NEILL, }

To the Hon. the Commissioner of Public Works.

*Comparative*

*Comparative Summary for year ending June 30th, 1891, with year ending June 30th, 1890.*

Items.	1890-91.		1889-90.	
	No.	£	No.	£
Miles open at close of year, 3ft. 6in. gauge .....	1,161½	—	1,107½	—
Do. do., 5ft. 3in. do. ....	504½	—	503	—
Average miles open for the year .....	1,637½	—	1,587½	—
Capital cost on miles open and completed .....	—	11,398,839	—	10,302,472
Do. per mile do. do. ....	—	6,842	—	6,398
Passenger traffic by ordinary and season tickets .....	—	269,750	—	249,132
Coaching do. other than the above .....	—	63,972	—	59,793
Mineral do. freight .....	—	236,232	—	186,800
Grain do. do. ....	—	73,715	—	79,200
Wool do. do. ....	—	32,240	—	29,100
Goods do. do. other than the above .....	—	449,993	—	360,350
Livestock do. do. ....	—	49,909	—	38,242
Miscellaneous earnings .....	—	48,188	—	41,261
Revenue—(Gross earnings) .....	—	1,223,999	—	1,043,878
Working expenses .....	—	617,179	—	529,005
Net revenue .....	—	606,820	—	514,873
Percentage of working expenses to revenue .....	50·42	—	50·68	—
Do. of net revenue to capital cost on average miles open .....	5·82	—	5·03	—
Passengers carried—Ordinary and season tickets .....	5,295,991	—	4,805,934	—
Minerals carried .....	381,006	—	305,332	—
Grain do. ....	206,101	—	224,994	—
Wool do. ....	23,254	—	22,267	—
Goods do. other than the above .....	547,540	—	488,115	—
Livestock do. ....	16,213	—	13,943	—
Goods and livestock, gross tonnage, freight paying ....	1,174,114	—	1,054,651	—
Cattle carried .....	31,150	—	21,885	—
Sheep do. ....	391,128	—	389,472	—
Average miles travelled per passenger .....	14·04	—	13·62	—
Do. do. per ton of goods .....	87·68	—	79·78	—
Average receipts per passenger per mile .....	0·87	—	0·91	—
Do. do. per ton of goods per mile .....	1·69	—	1·78	—
Train miles .....	3,769,225	—	3,304,364	—
Total earnings per train mile .....	77·94	—	75·82	—
Total working expenses per train mile .....	39·30	—	38·42	—
Total earnings per average mile open .....	—	747	—	658
Total working expenses per do. ....	—	377	—	333
Locomotives .....	216	—	202	—
Coaching vehicles .....	325	—	300	—
Goods and livestock vehicles .....	5,383	—	5,160	—
Population—approximately .....	320,000	—	328,000	—
Miles of line open for every one thousand of population —approximately .....	5½	—	5	—
Population for every mile of line opened .....	192	—	204	—

The above is exclusive of the Palmerston line.

October 27th, 1891.

J. PICKERING, Comptroller.

No. 47.

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## Appendix 1.

MILEAGE OPEN for TRAFFIC to June 30th, 1891 (exclusive of Palmerston Line).

From	To	Date of Opening.	Main Line Mileage.		Total for each System.	
			Miles.	Chains.	Miles.	Chains.
Adelaide .....	Port Adelaide .....	April 21st, 1856	7	35		
Do. ....	Smithfield .....	June 1st, 1857	17	53		
Dry Creek .....	Stockade .....	June 1st, 1857	2	49		
Smithfield .....	Gawler .....	October 5th, 1857	5	75		
Gawler .....	Roseworthy .....	August 13th, 1860	5	50		
Roseworthy .....	Kapunda .....	August 13th, 1860	17	37		
Dry Creek .....	Port Adelaide .....	February 1st, 1868	4	35		
Roseworthy .....	Tarlee .....	July 5th, 1869	23	77		
Tarlee .....	Manoora .....	February 21st, 1870	21	23		
Manoora .....	Burra .....	August 29th, 1870	25	47		
Port Adelaide .....	Semaphore .....	January 7th, 1878	1	69		
Burra .....	Hallett .....	May 10th, 1878	18	36		
Kapunda .....	Morgan .....	September 23rd, 1878	56	64		
Gawler Station .....	Gawler Town .....	February 17th, 1879	1	16		
Hallett .....	Terowie .....	December 14th, 1880	20	11		
Glanville .....	Largs Bay .....	February 16th, 1891 †	1	28		
Midland System .....					231	63
Port Wakefield .....	Hoyleton .....	January 1st, 1870	28	41		
Hoyleton .....	Blyth .....	March 1st, 1876	13	41		
Kadina .....	Moonta Bay (5ft. 3in. gauge) ..	March 1st, 1878	20	0		
Port Wakefield .....	Kadina .....	October 9th, 1878	34	55		
Kadina .....	Snowtown .....	October 1st, 1879	33	17		
Hamley Bridge .....	Balaklava .....	January 15th, 1880	22	13		
Kadina .....	Wallaroo (3ft. 6in. gauge) ....	January 15th, 1880	5	66		
Western System .....					167	73
Port Pirie .....	Crystal Brook .....	December 10th, 1875	17	41		
Crystal Brook .....	Gladstone .....	December 7th, 1876	14	73		
Gladstone .....	Caltowie .....	January 19th, 1878	11	51		
Caltowie .....	Jamestown .....	July 15th, 1878	7	67		
Port Augusta .....	Quorn .....	December 15th, 1879	24	50		
Quorn .....	Hawker .....	June 28th, 1880	40	49		
Jamestown .....	Yongala .....	December 14th, 1880	15	34		
Yongala .....	Petersburg .....	January 17th, 1881	6	10		
Petersburg .....	Terowie .....	May 11th, 1881	14	26		
Hawker .....	Beltana .....	July 1st, 1881	78	24		
Petersburg .....	Orroroo .....	November 23rd, 1881	21	75		
Orroroo .....	Quorn .....	May 22nd, 1882	58	38		
Beltana .....	Farina .....	May 22nd, 1882	54	62		
Farina .....	Hergott .....	February 7th, 1884	32	59		
Gladstone .....	Laura .....	June 2nd, 1884	6	71		
Petersburg .....	Cockburn .....	June 14th, 1887	144	62		
Hergott .....	Coward .....	February 1st, 1888	80	3		
Coward .....	William Creek .....	June 1st, 1889	45	18		
William Creek .....	Warrina .....	November 1st, 1889	67	15		
Warrina .....	Oodnadatta .....	January 7th, 1891	54	34		
Northern System .....					797	62
Goolwa .....	Port Elliot .....	May 18th, 1854	6	15		
Port Elliot .....	Victor Harbor .....	August 4th, 1864	3	76		
Strathalbyn .....	Goolwa .....	February 23rd, 1869 †	20	2		
Adelaide .....	Aldgate .....	March 14th, 1883	21	14		
Aldgate .....	Mount Barker Junction .....	November 28th, 1883	9	53		
Mount Barker Junction .....	Nairne .....	November 28th, 1883	3	40		
Mount Barker Junction .....	Mount Barker .....	November 28th, 1883	3	5		
Mount Barker .....	Strathalbyn .....	September 15th, 1884	16	35		
Sandergrove .....	Milang .....	December 17th, 1884	8	29		
Bordertown .....	Victorian Boundary .....	January 1st, 1885	11	75		
Nairne .....	Bordertown .....	May 1st, 1886	148	12		
Southern System .....					252	36
Kingston .....	Naracoorte .....	July 22nd, 1876	52	32		
Beachport .....	Mount Gambier .....	May 19th, 1879	51	16		
Naracoorte .....	Custon .....	September 21st, 1881	43	67		
Custon .....	Wolseley .....	April 18th, 1883	5	7		
Naracoorte .....	Mount Gambier .....	June 14th, 1887	63	36		
South-Eastern System .....					215	78
Port Broughton .....	Barunga Range .....	March 11th, 1876			10	0
					1,665	72

\* Main through-line is calculated from centre to centre of stations; at junctions the main through-line of the branches is reckoned from the point of the switches where it joins the original main line.

† Originally laid to Middleton, a distance of 21 miles, but on December 17th, 1884, a new line was constructed from a point 16 miles 57 chains south of Strathalbyn to Goolwa, a distance of 3 miles 25 chains, and the old line was thereupon taken up.

‡ Purchased on this date, but worked by the department from its opening on December 23rd, 1882.

Adelaide, July 1st, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

APPENDIX

## Appendix 2.

STATEMENT of LINES AUTHORISED and in PROGRESS but NOT OPENED for TRAFFIC on JUNE 30th, 1891.

All the lines authorised were opened prior to June 30th, 1891, with the exception of that from Parachilna to the Ranges (6½ miles), the construction of which has been postponed.

Adelaide, July 1st, 1891.

J. PICKERING, Junr., Comptroller of Accounts.

## Appendix 3.

PUBLIC DEBT FOR RAILWAYS, EXCLUSIVE OF PALMERSTON LINE.

Act No.	Undertaking.	Authorised to be Raised.	Bonds and Stock Sold—Amount.	Redeemable to June 30th, 1891.	In circulation on June 30th, 1891.	INTEREST.	
						Rate.	Paid and accrued to June 30th, 1891.
		£	£	£	£	Per cent.	£ s. d.
18 of 1853	Railway from Adelaide to Port Adelaide .....	150,000	150,000				
27 of 1856-6	Railway from Adelaide to Port Adelaide—To complete .....	36,000	36,000	203,750	—	6	109,001 12 9
9 of 1857-8	Railway from Adelaide to Gawler—To complete .....	17,750	17,750				
9 of 1857-8	Railway from Adelaide to Gawler—To complete .....	55,250	55,350				
18 of 1854	Railway from Adelaide to Gawler, with Branch to Stockade .....	250,000	250,000	300,350	—	6	256,629 15 5
10 of 1857-8	Railway from Gawler to Kapunda—First section .....	80,000	76,800				
2 of 1858	Railway from Gawler to Kapunda—Second section .....	40,000	36,800				
20 of 1859	Railway from Gawler to Kapunda—Third section .....	13,500	12,600				
2 of 1860	South Australian Railways—To complete .....	36,000	33,500				
23 of 1862	Tramway from Port Elliot to Victor Harbor .....	14,000	12,800				
1 of 1868-7	Tramway from Strathalbyn to Middleton .....	48,000	45,300		45,300	6	18,841 12 9
15 of 1866-7	Railway from Dry Creek to Port Adelaide .....	20,000	18,600		18,600	6	66,376 10 0
25 of 1866-7	Railway from Port Wakefield to Hoyle Plains .....	77,000	73,400		73,400	6	26,784 0 0
	Tramway from Strathalbyn to Middleton—To complete .....	44,000					105,240 0 0
28 of 1867	Railway from Roseworthy to Forresters .....	124,000			500,000	6	681,000 0 0
	Railway from Port Wakefield to Hoyle Plains—To complete .....	22,252					
	Additional Rolling-stock, &c. ....	73,000					
	Tramway to Granite Island, and additions to Victor Harbor jetty .....	10,000					
25 of 1872	Railway from Forresters to Redruth .....	260,000			160,000	4	113,600 0 0
	Railway from Kingston to Naracoorte .....	160,000					
	Railway accommodation .....	85,000					
2 of 1874	Railway from Port Pirie to Gladstone .....	147,000			450,000	4	297,000 0 0
	Railway from Port Broughton to Barunga Range .....	46,000					
	Railway from Port Wakefield to Kadina .....	115,000					
18 of 1874	Port Wakefield Extension Railway .....	55,000					
	Extending Railway through Port Pirie, and building wharves .....	17,000					
	Railway from Port Adelaide to Semaphore, including bridge .....	54,000			82,000	4	52,480 0 0
	Wharf at Port Wakefield .....	11,000					
24 of 1875	Port Wakefield and Kadina Railway—To complete .....	45,000					
	Kingston and Naracoorte Railway—To complete .....	100,000			200,000	4	82,666 13 4
	Murray Bridge .....	1,115,570					
	Railway from Port Augusta to Government Gums, &c. ....	357,719					
	Railway from Kapunda to North-West Bend, &c. ....	221,965					
	Railway from Rivoli Bay to Mount Gambier .....	92,710					
	Railway from Kadina to Barunga Gap .....	102,846					
	Railway from Gladstone to Jamestown .....	102,360					
	Railway from Bultra to Hallett .....	91,250					
47 of 1876	Railway from Port Pirie to Gladstone—To complete .....	15,700			2,188,500	4	1,186,836 0 0
	Railway from Port Broughton to Barunga Range—To complete .....	32,800					
	Port Wakefield Extension Railway—To complete .....	56,650					
	Railway from Port Wakefield to Kadina—To complete .....						

Year	Description	27,000	65,418	4	32,709 0 0
57 of 1876	Rivoli Bay Jetty	27,000	65,418	4	32,709 0 0
	Kingston Jetty	37,320			
	Wharf at Port Wakefield	1,088			
	Railway from Hamley Bridge to Balaklava	101,760			
	Gawler tramway	7,700			
77 of 1877	Railway from Kadina to Wallaroo, including purchase of tramways	118,225			
	Barunga Extension Railway	40,725			
	Additional requirements—Rolling-stock, &c.	18,440			
	Port Adelaide Swing-bridge	29,680			
	Murray Bridge	39,200			
	Port Broughton Jetty	7,716			
	Screw pile pier and causeway, Victor Harbor	29,345			
	Wallaroo Jetty	23,850			
	Railway from Adelaide to Nairne	712,721			
	Railway from Hallett to Terowie	132,194			
129 of 1878	Railway from Terowie to Pichi Richi, with branch to Jamestown	713,493			
	Additional accommodation	233,828			
	Wallaroo Jetty	7,950			
159 of 1879	Railway from Naracoorte to Tatiara	210,600			
	Additional accommodation	24,314			
189 of 1880	Additional accommodation	88,300			
	Railway from Tatiara to Bordertown	49,160			
	Railway from Mount Barker to Strathalbyn, including branch from Sandergrove to Milang	216,275			
	Railway from Kadina to Wallaroo—To complete	6,509			
227 of 1881	Railway from Farina Town to Hergott Springs	174,250			
	Railway accommodation	162,348			
	Wallaroo Jetty	9,225			
	Kingston Jetty	7,175			
	Rivoli Bay Jetty	6,662			
272 of 1882	Railway accommodation	95,335			
	Railway from Nairne to Victorian boundary	929,000			
297 of 1884	Railway from Gladstone to Laura	47,300			
	Railway from Hergott Springs to Strangways Springs	603,800			
	Strathalbyn, Goolwa, and Victor Harbor Railway, and Extension from Currency Creek to Goolwa	31,200			
	Railway from Petersburg to New South Wales border	540,400			
334 of 1884	Railway from Mount Gambier to Naracoorte	255,500			
	Railway from Murray Bridge to Victorian boundary (rolling-stock)	132,500			
	Railway from Adelaide to Nairne—To complete	52,000			
	Railway from Mount Barker to Strathalbyn—To complete	36,000			
	Coalshed Wharf, Port Adelaide	44,000			
362 of 1885	Railway from Strangways Springs to Peake	505,900			
	Railway accommodation	31,500			
391 of 1886	Port Pirie Wharf	16,500			
	Railway accommodation	17,000			
	Railway from Parachilna to the Ranges	13,230			
449 of 1888	Railway from Petersburg to New South Wales border, additional rolling-stock, &c.	124,500			
	Railway from Peake to Angle Pole—To complete	80,325			
	Additional accommodation	136,500			
491 of 1890	Port Pirie Wharf	94			
	Port Pirie Wharf	12,300			
	Port Broughton Jetty—Extension of T head	1,025			
	Wallaroo and Moonta Line	43,665			
	Additional accommodation	760,643			
	Totals	12,198,522	11,323,838	676,600	10,647,238
	Less interest on moneys transferred to other undertakings	—	—	—	—
	Net interest on Railway Loan moneys	—	—	—	—

\* This sum (Act 28 of 1867) represents \$30,000, less \$7,748 for deepening channel, Port Wakefield.

\* The sum of £141,472 2s. 3d. has been transferred from this amount to various undertakings other than railways.  
 † 61 6s. 9d. = 54 1s. 0d. per cent. per annum.

The interest due to bondholders for the year was £431,161 6s. 9d.=£4 ls. 0d. per cent. per annum.

**Adelaide, August 31st, 1891.**

**J. PICKERING, JUN., Comptroller of Accounts.**

## Appendix 4.

## LOANS PROVISION AND EXPENDITURE for RAILWAY PURPOSES to JUNE 30th, 1891 (exclusive of Palmerston Line.)

No.	By Act. Year.	Provision.			Expended to June 30th, 1891.			Unexpended Balances.			Transferred by Loan Money's Act, No. 219 of 1881, No. 382 of 1884, No. 437 of 1888, and P. P. No. 168 of 1891.
		Bonds Issued.	Amount realised.	Aid from General Revenue.	Transferred from other Railway Loans.	Net Interest paid out of Loan Provision.	Construction and Additional Requirements.	Retained.	Transferred to General Revenue.		
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
18	1853	150,000 0 0	151,104 14 1	—	—	—	150,000 0 0	—	1,104 14 1	—	—
18	1854	250,000 0 0	253,847 9 3	—	—	—	250,000 0 0	—	3,847 9 3	—	—
27	1855-6	36,000 0 0	36,000 0 0	—	—	—	36,000 0 0	—	—	—	—
9	1857-8	68,100 0 0	73,000 2 6	671 15 0	—	—	73,000 0 0	—	671 17 6	—	—
10	1857-8	76,800 0 0	82,019 15 0	91 10 0	—	—	80,000 0 0	—	2,019 15 0	—	—
2	1858	36,800 0 0	39,908 10 0	109 10 0	—	—	40,000 0 0	—	—	—	—
20	1859	12,800 0 0	13,390 10 0	1,094 5 0	—	—	13,500 0 0	—	—	—	—
2	1860	38,500 0 0	34,255 15 0	—	—	—	36,350 0 0	—	—	—	—
23	1862	12,800 0 0	14,178 0 0	—	—	—	14,000 0 0	—	178 0 0	—	—
1	1866-7	45,800 0 0	47,882 0 0	118 0 0	—	—	48,000 0 0	—	—	—	—
16	1866-7	18,600 0 0	19,436 15 0	563 5 0	—	—	20,000 0 0	—	—	—	—
25	1866-7	73,400 0 0	77,718 12 6	—	—	—	77,000 0 0	—	—	—	—
*28	1867	500,000 0 0	533,252 0 0	—	—	—	531,984 12 1	—	—	—	2,122 15 4
25	1872	160,000 0 0	147,918 1 4	—	—	—	147,918 1 4	—	—	—	—
2	1874	450,000 0 0	403,566 14 3	—	—	—	403,566 14 3	—	—	—	—
18	1874	82,000 0 0	76,237 12 3	—	—	—	75,049 16 6	—	—	—	187 15 9
24	1875	200,000 0 0	186,077 2 11	—	—	—	187,923 0 2	64 1 1	—	—	100 1 8
47	1876	2,188,500 0 0	2,053,982 18 4	—	—	—	1,984,949 18 0	419 18 8	—	—	68,613 1 8
1876	1876	65,418 0 0	68,005 12 8	—	—	—	58,005 12 8	—	—	—	—
*77	1877	416,641 0 0	387,287 17 10	—	—	—	369,967 6 3	—	—	—	16,465 4 2
129	1878	1,800,186 0 0	1,673,357 15 6	—	—	—	1,655,265 18 11	11,067 7 4	—	—	107,024 18 10
159	1879	234,330 0 0	240,729 4 3	—	—	—	186,436 18 11	63 1 1	5,898 4 3	—	48,330 0 0
189	1880	88,300 0 0	90,518 4 0	—	—	—	78,991 14 8	2,698 5 4	—	—	6,810 0 0
227	1881	631,594 0 0	630,072 12 4	—	—	—	577,397 15 10	24,424 16 6	—	—	28,250 0 0
272	1882	1,071,600 0 0	1,055,044 9 5	—	—	—	994,075 0 7	57,469 8 10	—	—	3,500 0 0
297	1884	635,000 0 0	633,234 0 0	—	—	—	577,397 15 10	11,133 4 11	—	—	146,000 0 0
333	1884	—	—	—	125,344 2 8	—	461,423 1 9	3,582 14 0	—	—	—
334	1884	1,060,400 0 0	1,053,283 7 4	—	—	—	121,461 8 8	30,411 18 1	—	—	42,700 0 0
362	1885	553,900 0 0	545,127 7 6	—	—	—	979,038 0 1	54,794 14 0	—	—	69,000 0 0
391	1885	17,000 0 0	17,350 13 4	—	—	—	399,352 17 10	803 9 3	—	—	—
437	1888	—	—	—	263,747 12 6	—	16,196 10 9	—	350 13 4	—	—
449	1888	354,569 0 0	348,155 0 3	—	—	—	263,747 12 6	—	—	—	—
P.P. 163	1881	—	—	—	8,340 0 0	—	231,628 19 2	105,134 10 11	—	—	—
491	1890	—	—	—	—	—	7,922 6 8	417 13 4	—	—	—
Glanville and Largs Bay	—	—	—	—	—	—	11,636 17 11	—	—	—	—
Less the last two items	—	—	—	—	—	—	—	302,775 3 4	—	—	—
Totals	—	11,323,838 0 0	10,977,942 16 10	2,648 5 0	397,431 15 2	43,172 8 4	10,553,539 14 9	219,398 6 7	17,008 9 11	—	538,903 17 5
			£11,378,022 17s. 0d.					£11,378,022 17s. 0d.			

\* Acts 28 of 1867 and 77 of 1877 were treated as one provision by the Treasury.

Adelaide, August 22nd, 1891.

J. PICKERING, Jun., Comptroller of Accounts.

APPENDIX

## Appendix 4a.

Dr.	RECEIPTS and EXPENDITURE on CAPITAL ACCOUNT to 30th JUNE, 1891 (exclusive of Palmerston Line).			Ca.		
	£	s.	d.	£	s.	d.
<b>To EXPENDITURE (see No. 6)—</b>						
Way, works, and buildings .....	9,276,323	19	1			
Rolling-stock .....	1,490,876	15	0	11,323,838	0	0
Machinery and plant .....	237,924	10	0	676,600	0	0
Interest (construction) .....	49,172	8	4			10,647,238 0 0
Discounts and floating charges, amount short raised (see No. 4) .....	245,895	3	2	676,600	0	0
				491,993	6	9
				1,168,593	6	9
<b>To balance of loans unexpended .....</b>						
				55,768	2	4
						1,112,825 4 5
						11,760,063 4 5
						141,472 2 3
						£11,618,591 2 2

Adelaide, August 31st, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Please correct  
call no.

## Appendix B.

Dr.	GENERAL BALANCE-SHEET—JUNE 30th, 1891 (exclusive of Palmerston Line).			Ca.		
	£	s.	d.	£	s.	d.
<b>To Capital (see No. 4A) .....</b>						
Sundry creditors .....	11,618,591	2	2			11,399,192 15 7
Sundry accounts in suspense .....	33,474	11	1			219,398 6 7
Fines .....	44,997	11	9			114,212 19 10
Guarantee .....	144	10	2			10,163 18 9
Deposits .....	1,054	17	9			144 10 2
H.M. Treasury—General revenue .....	2,810	6	10			1,054 17 9
						2,610 6 10
						1,577,646 0 11
						£13,324,423 16 5

Adelaide, September 14th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

APPENDIX

## STATEMENT of the COST of CONSTRUCTION and ADDITIONAL REQUIREMENTS, the INTEREST, and

System.	Gauge.	Miles of Line Open on June 30th, 1891.	For—	Cost of Construction	
				Way, Works, and Buildings. Total Expenditure.	Rolling-Stock. Total Expenditure.
				£ s. d.	£ s. d.
<b>MIDLAND SYSTEM—</b>					
Adelaide and Port Adelaide .....	ft. in.	mls. chs.	Construction	151,551 12 4	34,448 7 8
Port Adelaide and Semaphore .....	5 3	7 35	"	77,830 9 6	87 17 3
Glanville and Largs Bay (including jetty) .....	5 3	1 69	Purchase	11,636 17 11	—
Adelaide and Kapunda (including Dry Creek to Stockade) .....	5 3	1 26	Construction	516,561 0 4	44,921 16 1
Dry Creek and Port Adelaide .....	5 3	49 24	"	616,561 0 0	—
Roseworthy and Tarlee .....	5 3	4 35	"	113,879 6 5	10,120 13 7
Tarlee and Burra .....	5 3	23 77	"	229,354 1 3	30,515 5 6
Burra and Hallett .....	5 3	46 70	"	88,467 18 10	7,350 3 6
Hallett and Terowie .....	5 3	18 36	"	108,876 1 7	4,656 7 11
Kapunda and North-West Bend .....	5 3	20 11	"	297,519 9 7	21,167 16 11
Gawler Tramway .....	5 3	56 64	"	6,220 11 9	522 4 5
On the above 231 miles 63 chains .....	5 3	1 16	"	671,446 10 8	328,142 14 7
				<b>Additional Requirements</b>	
<b>SOUTHERN SYSTEM—</b>					
Adelaide, Nairne, and Mount Barker .....	5 3	37 32	Construction	646,358 19 0	46,224 7 1
Nairne to Victorian Border (including the Murray Bridge) .....	5 3	160 7	"	971,257 2 7	172,009 8 0
Mount Barker and Strathalbyn (including Sander- grove to Milang) .....	5 3	24 64	"	219,341 4 4	25,586 8 6
Strathalbyn, Goolwa, and Victor Harbor .....	5 3	30 13	"	178,273 15 0	13,000 0 0
Strathalbyn, Goolwa, and Victor Harbor (adapting line for loco. traffic) .....	5 3		"	8,776 18 9	8,572 18 11
Including line Currency Creek to Goolwa ..	5 3			49,077 6 6	11,182 16 5
On the above 252 miles 36 chains .....	—	—	<b>Additional Requirements</b>		
<b>WESTERN SYSTEM—</b>					
Port Wakefield and Hoyleton .....	3 6	28 41	Construction	83,792 0 0	15,460 0 0
Hoyleton and Blyth .....	3 6	13 41	"	72,224 18 5	4,951 14 2
Port Wakefield and Kadina .....	3 6	34 55	"	174,050 1 0	31,260 18 1
Kadina and Barunga Gap .....	3 6	33 17	"	70,642 1 0	12,123 6 7
Barunga Gap and Snowtown .....	3 6		"	31,931 1 4	5,145 7 10
Hamley Bridge and Balaklava .....	3 6	22 13	"	87,820 16 10	5,837 15 4
Kadina, Wallaroo, and Moonta .....	5 3	20 0	"	77,443 12 0	8,560 0 0
Moonta and Moonta Bay .....	5 3		"	8,416 12 5	—
Kadina and Wallaroo (new line) .....	3 6	5 66	"	24,761 13 6	1,041 0 9
On the above 167 miles 73 chains .....	—	—	<b>Additional Requirements</b>	79,583 6 5	14,987 17 4
<b>NORTHERN SYSTEM—</b>					
Port Pirie and Gladstone .....	3 6	32 34	Construction	185,831 10 8	39,437 6 1
Gladstone and Jamestown .....	3 6	19 38	"	75,231 14 9	8,010 10 2
Terowie and Pichi Richi (including Jamestown to Petersburg) .....	3 6	116 23	"	463,448 8 6	96,205 12 7
Gladstone and Laura .....	3 6	6 71	"	27,309 13 0	7,617 8 0
Petersburg and New South Wales Border .....	3 6	144 62	"	530,946 7 0	93,164 2 10
Port Augusta and Government Gums .....	3 6	198 25	"	969,581 7 6	64,253 8 6
Farina and Hergott Springs .....	3 6	32 59	"	130,516 18 3	18,624 9 5
Hergott Springs and Strangways Springs .....	3 6	99 35	"	363,577 0 2	52,748 6 2
Strangways Springs and Peake .....	3 6	99 0	"	319,915 7 8	25,548 6 4
Peake and Angle Pole .....	3 6	48 35	"	226,322 9 6	21,344 7 6
On the above 797 miles 62 chains .....	—	—	<b>Additional Requirements</b>	83,218 11 2	100,985 16 8
<b>SOUTH-EASTERN SYSTEM—</b>					
Kingston and Naracoorte .....	3 6	52 32	Construction	172,583 17 8	17,170 6 10
Naracoorte and Tatiara .....	3 6	43 67	"	135,347 3 10	28,296 3 6
Tatiara and Wolseley .....	3 6	5 7	"	11,760 3 7	128 3 6
Rivoli Bay and Mount Gambier .....	3 6	51 16	"	172,840 3 3	28,690 18 2
Mount Gambier and Naracoorte .....	3 6	63 36	"	183,600 4 11	24,403 2 2
On the above 215 miles 78 chains .....	—	—	<b>Additional Requirements</b>	95,746 16 3	4,034 4 6
<b>PORT BROUGHTON AND BARUNGA RANGE .....</b>					
On the above .....	3 6	10 0	Construction	43,574 5 9	4,325 12 2
	—	—	<b>Additional Requirements</b>	5,415 8 8	11 3 6
<b>WALLAROO AND MOONTA (new line) .....</b>					
Parachilna to the Ranges .....	3 6	—	Construction	1,130 2 3	—
	3 6	—	"	230 15 6	—
<b>COST OF CONSTRUCTION AND ADDITIONAL REQUIREMENTS—</b>					
Add for expenditure out of Loan moneys the following items, and reduce the expenditure from General Revenue, Capital Account by the same amount:—					
Relaying .....				—	—
Premiums short credited .....				—	—
Discounts and floating charges (amount short raised) see No. 4 .....				—	—
<b>Total Cost .....</b>				9,275,323 19 1	1,490,876 15 0

The total cost on the 1,665 miles 73 chains

Adelaide, August 31st, 1891.



dix 6.

ROLLING-STOCK, from the COMMENCEMENT of the LINES to JUNE 30th, 1891 (exclusive of Palmerston Line).

and Additional Requirements.					Interest Paid and Accrued on Bonded Debt.			Rolling-Stock.			Horses.
Machinery and Plant. Total Expenditure.	Net Amount of Interest charge- able against Loan Funds.	Grand Totals.									
		Expenditure by Loans.			Expenditure from General Revenue.		Per Mile Open.	Loco- motives.	Coaching.	Goods and Livestock.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£	£ s. d.	No.	No.	No.	No.	
—	—	186,000 0 0	—	—	12,353	1,770,778 10 8	109	197	1,954	10	
—	—	77,918 6 9	—	—							
—	—	11,636 17 11	—	—							
—	—	491,850 0 0	69,632 16 5	—							
—	—	20,000 0 0	—	—							
—	—	124,000 0 0	—	—	9,572	946,015 11 9	10	26	554	28	
860 16 11	—	260,000 0 0	730 3 8	—							
—	—	95,818 2 4	—	—							
2,323 2 10	—	115,855 12 4	—	—							
510 7 8	—	319,197 14 2	—	—							
—	—	6,742 16 2	—	—	5,175	537,307 11 8	88	84	2,544	—	
85,132 18 2	1,133 9 2	837,762 6 4	246,093 6 3	—							
20,439 10 10	—	713,022 16 11	—	—							
38,479 0 2	—	1,181,745 10 9	—	—							
3,587 18 8	—	248,515 11 6	77,396 10 4	—							
—	—	113,877 4 8	—	—	5,039	1,651,598 0 1	9	16	279	—	
50 3 9	—	17,400 1 5	—	—							
4,176 1 0	—	51,360 17 9	13,075 6 2	—							
—	—	99,252 0 0	—	—							
486 15 7	—	77,663 8 2	—	—							
888 11 3	—	206,199 10 4	—	—	4,078	459,206 17 5	216	325	5,383	79	
—	—	82,765 7 7	—	—							
—	—	37,076 9 2	—	—							
2,000 0 0	—	93,658 12 2	—	—							
—	—	89,003 12 0	—	—							
832 14 7	—	8,416 12 5	—	—	5,430	38,213 17 11	—	2	52	11	
1,941 2 9	—	26,635 8 10	24,211 15 0	—							
1,386 6 5	—	72,300 11 6	—	—							
66 7 7	—	226,655 3 2	—	—							
—	—	83,308 12 6	—	—							
3,399 12 2	—	563,053 13 3	—	—	4,078	459,206 17 5	9	16	279	—	
1,082 18 2	—	36,009 19 2	—	—							
9,642 19 0	—	633,753 8 10	—	—							
1,060 8 4	—	1,034,895 4 4	—	—							
994 4 4	—	150,135 12 0	—	—							
13,994 10 10	14,667 13 4	444,987 10 6	—	—	5,430	38,213 17 11	—	2	52	11	
10,306 4 3	21,979 15 8	377,749 13 11	—	—							
18,950 2 10	11,368 6 1	277,985 7 11	46,211 2 5	—							
6,968 15 8	—	144,962 1 1	—	—							
—	—	—	—	—							
327 1 2	—	190,081 5 8	—	—	4,078	459,206 17 5	9	16	279	—	
293 11 7	—	163,936 18 11	—	—							
1,195 15 2	—	13,084 2 3	—	—							
—	—	201,531 1 5	—	—							
2,249 0 4	—	210,252 7 5	—	—							
2,077 4 1	—	89,248 19 11	12,609 4 11	—	5,430	38,213 17 11	—	2	52	11	
529 15 7	—	48,429 13 6	2,033 1 7	—							
439 9 8	—	3,833 0 3	—	—							
250 18 8	—	1,381 0 11	—	—							
—	23 2 1	353 17 7	—	—							
237,924 10 0	49,172 8 4	10,561,304 5 8	491,993 6 9	—	5,474,278 2 0	216	325	5,383	79		
—	—	41,407 17 5	55,768 2 4	—	—	—	—	—	—		
—	—	14,360 4 11		—	—	—	—	—	—		
—	—	345,895 3 2	—	—	—	—	—	—	—		
—	—	10,962,967 11 2	436,225 4 5	—	—	—	—	—	—		

was £11,898,838 18s. 6d., or £8,842 per mile.

J. PICKERING, JUN., Comptroller of Accounts.

No. 47.

APPENDIX

Appendix 7.

REVENUE ACCOUNT, ALL LINES (except the Palmerston), YEAR ended JUNE 30th, 1891.

EXPENDITURE.	Year ended June 30th.		REVENUE.	Year ended June 30th.	
	1890.	1891.		1890.	1891.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
General charges .....	23,171 3 0	19,401 6 4	Coaching traffic—		
Traffic expenses .....	138,988 16 6	149,289 7 3	Passengers .....	249,132 9 9	269,749 10 7
Horse power .....	3,892 8 4	3,440 10 6	Parcels and cloakroom charges .....	25,391 1 5	23,769 17 2
Loco. power .....	181,349 2 9	237,499 5 6	Mails .....	16,553 4 0	15,939 14 9
Carriages and wagons, repairs .....	35,950 19 5	41,194 3 0	Other items, see No. 11 .....	17,848 8 6	19,573 7 1
Maintenance of way and works .....	145,652 2 8	167,444 12 9	Miscellaneous * .....	7,471 2 1	7,545 18 10
Totals working expenditure .....	529,004 12 8	617,179 5 9	Total coaching .....	316,396 5 9	341,267 8 5
			Merchandise traffic—		
			Goods .....	655,450 6 6	792,180 5 9
			Livestock .....	38,241 15 0	49,909 0 3
			Miscellaneous * .....	33,790 2 5	40,642 9 1
Balance, being net revenue .....	514,873 17 0	603,819 13 2	Total merchandise .....	727,482 3 11	882,731 15 6
Grand Totals .....	1,043,878 9 8	1,233,999 3 11	Grand Totals .....	1,043,878 9 8	1,233,999 3 11

\* These include receipts for haulage of traffic on Silverton Tramway, rents, sales of water, &c. See Appendix No. 11.

Adelaide, September 3rd, 1891.

J. PICKERING, Junr., Comptroller of Accounts.

## Appendix 8.

## DETAILED STATEMENT of MILEAGE for the YEAR ended JUNE 30th, 1891 (exclusive of Palmerston Line).

Description.	SYSTEMS.						Totals.
	Midland.	Western.	Northern.	Southern.	South-Eastern.	Port Broughton.	
<b>TRAIN MILEAGE—</b>							
Passenger—Ordinary .....	571,875	88,808	268,728	386,908	68,001	3,046	1,387,366
Special .....	92,744	5,642	14,594	46,277	2,942	145	92,344
Goods—Ordinary .....	534,526	66,390	1,214,700	128,894	68,000	4,698	2,017,108
Special .....	91,275	6,562	120,780	50,965	2,825	—	272,407
Total Horse-power .....	7,723	62,935	—	—	—	7,789	78,447
Total Locomotive-power .....	1,212,697	104,467	1,618,802*	613,044	141,768	—	3,690,778
<b>OTHER ENGINE MILEAGE—</b>							
Ballasting .....	5,894	1,050	19,486	602	530	—	27,562
Shunting .....	586,716	40,529	495,272†	154,986	25,938	—	1,303,441
Total Engine Mileage each System .....	1,805,307	146,046	2,133,560	768,632	168,236	—	5,021,781

\* Of the above, 125,077 miles were run over the Silverton tramway. As the S. A. Railways provided rolling-stock and motive power for this work, the train mileage charged to the Company is credited, and the working expenses of such service debited, to Northern System.

Adelaide, August 21st, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

## Appendix 9.

## STATEMENT of MILES OPEN for TRAFFIC, YEAR ended JUNE 30th, 1891 (exclusive of Palmerston Line).

Systems.	Opened during the Year.				Open at close of the Year.		Average Miles Open during the Year.
	Gauge.	Open at beginning of the Year.	Line.	Gauge.	Date.	Length.	
		Miles. Chains.		Ft. In.		Miles. Chains.	Miles. Chains.
Midland .....	3 6	230 37	Glanville to Large Bay	3 6	Feb. 16th, 1891*	1 26	231 63
Southern .....	3 6	262 36	—	—	—	—	252 36
Western (horse power) .....	3 6	20 0	—	—	—	—	157 73
" (loco. power) .....	3 6	137 73	—	—	—	—	—
Northern .....	3 6	743 28	Warrina to Oodnadatta	3 6	Jan. 7th, 1891	64 34	769 36
South-Eastern .....	3 6	215 78	—	—	—	—	215 78
Port Broughton .....	3 6	10 0	—	—	—	—	10 0
Totals .....	—	1,610 12				55 60	1,637 46
						10 14	1,655 58
						1,665 miles 72 chains	

Adelaide, July 1st, 1891.

\* Purchased on this date, but the earnings were credited and the expenses debited to the department during the whole year.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 10.

STATEMENT of the COACHING and MERCHANDISE TRAFFIC in 1890-91, as compared with 1889-90 (exclusive of Palmerston Line).

System.	Coaching Traffic.										Merchandise Traffic.									
	Year ended June 30th.	Average Miles Open for Traffic.	Passengers.					Livestock.					Goods.							
			By Ordinary Tickets.			By Season Tickets.		Number of Horses.	Number of Cattle and Calves.	Number of Sheep.	Number of Pigs.	Minerals.	Wheat.	Wool.	All other Goods.					
			Total		Grand Total Number of Passengers.															
			1st Class.	2nd Class.		Number.	Represented													
Midland.....	1890.	230 37	449,365	2,356,581	2,805,946	17,675	1,332,389	4,138,335	1,320	14,453	314,685	9,890	136,219	58,187	80,853	383,212				
	1891	231 63	483,337	2,581,810	3,065,137	20,627	1,487,339	4,552,476	2,318	21,203	326,177	14,591	221,453	58,262	81,923	386,581				
Western .....	1890.	157 73	6,421	87,719	94,140	88	7,118	101,258	133	54	10,548	2,546	38,149	41,182	2,155	35,328				
	1891	157 78	8,047	97,403	105,452	123	10,034	115,686	187	103	16,543	5,132	37,460	80,232	4,016	46,933				
Northern .....	1890.	780 57	26,134	126,223	152,357	33	3,268	155,565	1,178	14,436	559,946	4,223	182,575	119,588	45,396	149,069				
	1891	769 36	30,763	143,491	174,254	40	4,355	178,609	1,363	18,232	174,941	4,845	211,017	107,103	53,405	212,022				
Southern .....	1890.	252 36	78,645	232,413	311,058	841	62,179	373,237	692	2,035	65,599	4,969	9,716	11,829	18,215	60,282				
	1891	252 36	78,531	245,867	324,398	1,220	82,233	408,047	1,175	2,277	52,415	5,270	24,690	16,478	19,644	79,240				
South-Eastern .....	1890.	215 78	6,973	29,884	36,857	2	157	37,014	394	252	13,719	549	6	929	13,436	20,206				
	1891	215 78	7,452	32,950	40,402	4	208	40,610	550	477	8,020	299	242	2,370	12,516	27,372				
Port Broughton .....	1890.	10 0	—	525	525	—	—	525	—	—	—	—	—	9,281	79	853				
	1891	10 0	—	563	563	—	—	563	—	—	—	—	—	6,269	24	816				
Totals.....	1890.	1,587 41	567,538	2,833,345	3,400,883	18,639	1,405,051	4,805,934	3,627	31,230	564,497	22,177	366,565	240,996	160,134	648,950				
	1891	1,637 46	608,130	3,102,282	3,711,832	22,004	1,584,150	5,293,901	5,303	42,744	578,135	30,047	491,029	222,340	171,490	703,384				

Adelaide, September 5th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 11.

ANALYSIS of REVENUE for YEAR ended JUNE 30th, 1891 (exclusive of Palmerston Line).

No. 47.

SYSTEMS.

Items.	Midland.			Western.			Northern.			Southern.			South-Eastern.			Port Broughton.			Totals.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
COACHING TRAFFIC—																					
Passengers by ordinary tickets—1st class .....	37,082	2	3	2,131	6	7	17,486	14	11	25,633	12	8	2,583	2	10	—	—	—	84,560	19	3
“ “ “ “ 2nd “ .....	82,462	12	9	9,992	19	10	40,006	4	4	34,310	3	7	6,224	13	2	22	19	5	173,019	13	1
Passengers by season tickets—1st class .....	3,352	16	8	6	17	6	69	5	0	467	0	1	—	—	—	—	—	—	3,895	19	3
“ “ “ “ 2nd “ .....	6,954	14	10	98	8	9	52	8	9	860	9	2	—	—	—	—	—	—	7,966	19	0
Total .....	129,852	6	6	12,229	12	8	57,614	13	0	61,271	5	6	8,758	13	0	22	19	5	269,749	10	7
Excess fares .....	1,897	15	11	419	0	6	2,236	13	2	1,191	19	11	415	17	2	5	16	10	6,167	3	6
Sleeping-berth tickets .....	—	—	—	—	—	—	2,095	10	0	2,389	8	5	—	—	—	—	—	—	4,484	18	5
Yearly and half-yearly tickets over more than one line .....	1,961	11	7	567	16	10	1,794	8	10	957	16	3	362	5	3	—	—	—	5,633	18	9
Police and military subsidies .....	910	3	4	162	13	4	803	13	4	365	6	8	159	13	4	—	—	—	2,391	10	0
Dogs .....	221	0	11	23	11	5	124	6	0	85	13	0	24	8	6	0	5	0	479	4	10
Mails .....	3,854	12	4	472	2	2	2,536	11	9	8,404	18	9	359	7	0	2	2	9	15,629	14	9
Parcels and cloakroom charges .....	12,976	10	10	1,789	3	5	6,319	1	1	6,146	17	2	1,582	5	4	5	19	4	28,769	17	2
Special trains .....	79	2	6	43	0	7	14	18	4	56	16	10	22	15	3	3	6	0	219	19	6
Sundry earnings .....	175	7	0	2	15	2	9	7	0	6	4	11	1	17	0	0	1	0	195	12	1
Total Coaching Traffic .....	151,928	10	11	15,639	16	1	73,549	2	6	80,876	7	5	11,687	2	4	40	10	4	333,721	9	7
MERCHANDISE TRAFFIC—																					
Goods .....	238,721	9	2	27,203	17	11	463,793	4	0	46,222	3	3	15,117	19	9	1,121	11	8	792,180	5	9
Livestock .....	20,397	10	6	500	0	4	23,673	11	3	4,665	19	6	671	19	1	—	—	—	49,909	0	8
Total Merchandise Traffic .....	259,118	19	8	27,703	18	3	487,466	15	3	50,888	2	9	15,789	18	10	1,121	11	8	842,089	6	5
MISCELLANEOUS—																					
Advertisements .....	186	17	0	22	3	0	214	15	9	81	6	6	18	16	7	1	1	2	526	0	0
Rents .....	4,050	16	7	1,041	15	7	8,029	1	5	1,601	5	4	897	3	6	69	16	2	15,689	18	7
Running powers—Glenelg Railway Company .....	28	1	6	—	—	—	—	—	—	7	9	3	—	—	—	—	—	—	35	10	9
Silverton Tramway Company, for haulage of trains .....	—	—	—	—	—	—	20,421	12	6	—	—	—	—	—	—	—	—	—	20,421	12	6
Water, Sales of, &c. ....	140	2	7	17	13	9	213	4	11	48	8	0	14	11	3	32	19	5	466	19	11
Wharfage .....	193	10	7	3,656	5	0	5,184	17	9	500	11	1	911	2	6	652	19	3	11,049	6	2
Total Miscellaneous .....	4,599	8	3	4,737	17	4	34,013	12	4	2,239	0	2	1,841	13	10	756	16	0	48,188	7	11
Grand total .....	£415,646	18	10	48,081	11	8	595,029	10	1	134,003	10	4	29,318	15	0	1,918	18	0	1,223,999	3	11

J. PICKERING, JUN., Comptroller of Accounts.

Adelaide, September 2nd, 1891.

APPENDIX

## Appendix 12.

COMPARATIVE RETURN SHOWING MILEAGE OF PASSENGERS, TONS and MILEAGE OF GOODS CARRIED, REVENUE and RECEIPTS per AVERAGE MILE OPEN during the YEARS ended JUNE 30th, 1890 and 1891 (exclusive of Palmerston line).

System.....	Description.	Midland.		Western.		Northern.		Southern.		South-Eastern.		Port Broughton.		Total.	
		1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.
COACHING TRAFFIC—															
Passengers .....	No.	4,138,335	4,532,478	101,458	115,086	155,565	178,609	373,437	408,047	37,014	40,810	595	663	4,805,934	5,285,991
Total number of miles travelled .....	Miles	34,603,650	39,294,312	2,537,924	2,985,375	10,967,711	13,088,252	15,475,516	17,087,108	1,875,864	2,031,570	5,118	5,490	65,465,783	74,387,107
Average mileage per passenger .....	"	8.36	8.62	25.06	25.81	70.50	72.99	41.46	41.86	50.68	49.78	9.75	9.75	13.62	14.04
Gross amount received from passengers by ordinary and season tickets .....	£	111,969	129,852	12,379	12,230	55,827	57,815	60,316	61,271	8,617	8,759	24	23	249,132	268,750
Average receipts per passenger per mile .....	d.	0.78	0.79	1.17	0.98	1.22	1.06	0.94	0.86	1.10	1.04	1.13	1.01	0.91	0.87
Gross amount received from coaching traffic, and its proportion of miscellaneous receipts .....	£	135,117	154,819	15,523	15,738	74,181	77,968	80,993	81,156	11,428	11,733	52	63	316,396	341,207
Average receipts per train mile .....	d.	54.88	62.41	41.02	39.99	62.56	65.99	44.96	44.96	38.55	39.86	3.97	4.74	51.72	55.35
Average receipts per average mile open .....	£	586	667	98	100	103	101	317	321	51	55	5	6	199	208
MERCHANDISE TRAFFIC—															
Total weight of freight-paying goods .....	Tons	545,132	617,966	113,199	112,213	410,465	513,303	78,371	111,946	21,750	29,004	10,124	7,180	1,209,041	1,401,651
Total weight of livestock .....	"	10,793	12,899	360	595	7,184	9,474	2,128	2,088	449	416	—	—	20,914	25,472
Total weight of goods free .....	"	45,803	62,312	1,815	2,968	18,244	26,078	6,456	11,689	1,604	3,048	23	—	73,945	106,065
Mileage of tons goods (freight-paying) and livestock .....	Miles	28,994,685	35,233,913	2,503,358	2,739,570	60,220,369	78,637,081	4,685,666	6,806,088	1,553,723	2,117,752	104,857	75,850	98,062,658	125,130,254
Average mileage per ton (freight-paying) .....	"	52.02	55.85	22.01	19.85	134.53	147.64	58.21	59.67	69.99	71.98	10.36	10.55	79.73	87.88
Gross amount received from merchandise traffic and its proportion of miscellaneous receipts .....	£	231,498	201,028	31,934	32,543	407,582	517,122	39,698	52,847	14,803	17,436	1,967	1,856	727,482	882,732
Average receipts per ton per mile (freight-paying) .....	d.	1.92	1.78	3.06	3.17	1.62	1.58	2.03	1.86	2.29	1.99	4.50	5.87	1.78	1.69
Average receipts per train mile .....	"	109.11	100.11	101.45	106.40	91.98	92.93	64.92	70.52	59.33	59.42	74.59	96.88	95.09	92.53
Average receipts per average mile open .....	£	1,004	1,126	202	205	565	672	157	209	69	81	197	186	458	539
ALL TRAFFIC—															
Gross amount received .....	£	366,615	415,647	47,459	48,081	481,763	585,030	119,791	134,603	26,231	29,319	2,019	1,919	1,043,878	1,233,999
Receipts per train mile .....	d.	79.98	81.74	69.36	68.93	87.96	88.21	50.06	52.46	44.42	49.63	51.14	59.13	75.82	77.94
Receipts per average mile open .....	£	1,591	1,784	300	304	668	773	474	531	121	138	202	192	658	747

Adelaide, September 2nd, 1891.

J. PICKERING, Junr., Comptroller of Accounts.

APPENDIX



Appendix 13.

STATEMENT of LIVESTOCK and PRINCIPAL ITEMS of MERCHANDISE FORWARDED, and TOTAL TONNAGE RECEIVED, by EACH STATION during YEAR ended JUNE 30th, 1891  
(exclusive of Palmerston line).

Stations.	Livestock.			Flour. Tons.	Wheat. Tons.	Minerals. Tons.	Firewood. Tons.	Wool. Bales.	O. S. Goods Free. Tons.	All other Goods. Tons.	Total Tonnage Forwarded.		Total Tonnage Received.
	Number of Cattle.	Number of Sheep.	Number of Hogs.								Tons.	Tons.	
Adelaide—Midland .....	1,307	8,668	211	—	—	32	—	5	2,026	46,070	48,129	155,834	
“ Southern .....	981	6,539	1,783	—	—	9	—	—	179	6,417	6,612	24,237	
Algebuckina .....	—	—	—	—	—	—	—	—	—	4	4	852	
Alberton .....	—	—	—	—	—	—	—	—	3	1	4	2,698	
Aldgate .....	—	—	—	—	—	295	166	—	90	968	1,519	960	
Ambleside .....	—	—	—	427	—	4,712	5,725	49	189	693	11,653	863	
Anna Creek .....	—	—	—	—	—	—	—	—	—	—	—	72	
Auburn-road .....	—	—	—	—	12	—	—	—	6	—	17	2	
Avenue .....	—	—	—	—	28	—	—	808	2	45	190	122	
Begot's Well .....	—	—	—	—	613	—	—	53	1	6	629	21	
Balaklava .....	36	4,878	1,315	2,034	2,187	—	611	698	106	1,349	6,425	2,392	
Balannah .....	17	—	—	105	2	346	1,173	16	—	879	2,607	846	
Barunga Gap .....	—	—	175	—	564	—	3	—	2	235	804	241	
Beachport .....	9	100	3	4	—	220	—	—	608	2,729	3,561	4,353	
Belair .....	13	12	—	—	—	192	9	1,675	109	115	224	52	
Beltana .....	—	—	—	5	—	—	—	—	389	92	984	1,751	
Beresford .....	—	—	—	—	—	—	—	284	—	249	7	6	
Binnun .....	—	—	—	—	—	—	—	—	—	—	298	44	
Blackfellow's Creek .....	—	—	—	—	—	—	—	—	—	—	—	174	
Blackrock .....	—	1	171	—	3,249	—	18	76	74	164	3,523	323	
Blackwood .....	6	—	—	—	—	155	—	17	—	1,561	1,718	708	
Blyth .....	1	426	35	—	2,470	—	366	944	26	113	3,159	913	
Boorhanna .....	—	—	—	—	—	—	—	—	—	—	—	—	
Boopchee .....	86	5	1	—	—	3	21	—	2	7	33	33	
Bordertown .....	—	—	—	3	721	—	—	910	943	317	2,122	1,642	
Bowden .....	—	—	73	—	517	490	17	76	5,037	1,190	6,745	28,074	
Bower .....	—	—	—	755	8	—	10,232	—	165	18	10,932	184	
Bridgewater .....	—	—	—	—	—	—	181	—	1	164	1,109	637	
Bruce .....	3	6	361	—	2,463	—	—	207	166	261	2,921	278	
Bugle Ranges .....	—	—	—	—	—	1,450	1,047	99	78	140	3,331	91	
Burra .....	463	31,296	735	2,800	223	104	20	4,147	1,517	2,194	7,581	7,738	
Bute .....	—	—	—	—	3,744	—	344	5	22	178	4,288	1,464	
Callanna .....	—	—	—	—	—	—	—	420	—	13	80	56	
Callington .....	38	907	25	—	324	279	1,188	329	23	260	2,127	820	
Calowie .....	20	—	244	714	7,683	3	—	508	23	679	9,079	1,901	
Carrieton .....	986	13,534	245	—	8,355	559	—	866	2	160	9,222	1,759	
Cockburn .....	10	2,703	—	—	—	756	—	4,248	13	120	1,596	4,544	
“ through .....	23	—	—	—	—	120,735	—	8,957	1	34,412	166,964	—	
Cook's Plains .....	1	50	—	—	—	—	84	52	27	7	127	132	
Coonalpyn .....	—	—	—	—	—	—	—	—	30	6	36	152	

No. 47.

APPENDIX

## APPENDIX 13—continued.

## STATEMENT of LIVESTOCK and PRINCIPAL ITEMS of MERCHANDISE FORWARDED, and TOTAL TONNAGE RECEIVED, &amp;c.—continued.

Stations.	Livestock.			Flour.	Wheat.	Minerals.	Firewood.	Wool.	O. S. Goods Free.	All other Goods.	Total Tonnage Forwarded.	Total Tonnage Received.
	Number of Cattle.	Number of Sheep.	Number of Pigs.									
Coward .....	2,187	—	2	—	—	—	—	906	14	29	181	247
Crystal Brook .....	138	7,503	633	590	5,411	4	81	445	99	2,514	8,772	2,997
Croydon .....	—	—	—	—	—	—	—	—	—	—	—	1
Currency Creek .....	10	50	38	—	6	—	177	36	56	33	279	104
Custon .....	—	2	6	—	179	—	57	24	4	13	238	56
Dawson-road .....	—	1	16	—	2,045	—	6	19	19	104	2,177	416
Davenport .....	—	—	—	—	—	—	4	—	—	—	4	1
Deep Creek .....	—	—	—	—	1,888	—	17,259	6	55	91	19,294	810
Dry Creek .....	1	—	—	—	—	1,551	39	—	667	6,738	8,995	120,199
Eba .....	—	—	—	—	142	—	854	—	213	4	1,213	16
Edlowie .....	—	15,201	—	—	—	1	—	617	5	13	140	77
Edward's Creek .....	—	—	—	—	—	—	—	—	—	—	—	14
Eudunda .....	332	4,313	242	1,070	10,314	8	8,882	833	316	1,557	22,288	3,487
Eurelia .....	10	—	142	—	2,497	—	2	108	67	68	2,649	395
Eight-Mile (Western System) .....	—	—	—	—	—	—	247	—	—	8	255	—
“ (Port Broughton Line) .....	—	—	—	—	—	—	—	—	—	—	—	—
Farina .....	3,389	7,521	2	21	—	110	—	1,824	203	257	890	1,546
Farrell's Flat .....	935	23,637	755	—	258	—	—	5,339	65	394	1,555	1,545
Finias .....	10	629	47	—	24	—	1,786	61	134	88	2,040	862
Five-Mile (Port Broughton Line) .....	—	—	—	—	24	—	—	—	—	—	24	—
Fords .....	3	—	—	—	152	—	—	7	18	14	155	118
France .....	3	—	4	—	272	—	126	360	238	122	802	348
Freeling .....	36	734	168	3,208	5,952	—	—	1,082	31	3,945	13,310	4,369
Gawler .....	176	12,834	522	9,014	2,217	4	31	1,030	1,637	13,858	26,914	29,707
Gemmells .....	—	—	—	—	—	—	3,342	16	—	6	3,350	11
Gladstone .....	39	3,628	58	—	3,866	3,226	—	741	332	2,942	10,489	1,909
Glen Roy .....	50	1,661	—	—	—	—	—	579	—	10	101	91
Goodwa .....	243	4,347	591	46	4,048	—	12	15,130	28	316	6,766	1,464
Goodwood .....	—	—	—	—	—	—	—	—	2	6	7	1,634
Gordon .....	—	6,244	2	—	937	331	—	278	45	29	1,393	302
Green's Plains West .....	—	—	88	—	455	—	382	—	2	8	848	427
Gumbowie .....	—	—	—	—	63	—	—	—	—	8	71	82
Halbury .....	—	—	—	—	531	—	1,883	25	40	27	2,485	232
Hallett .....	44	4,099	122	—	793	—	—	723	13	78	996	817
Hamley Bridge (Midland System) .....	36	13,029	364	1,169	1,249	—	789	387	332	630	4,229	2,001
“ (Western System) .....	2	200	—	26	11	—	—	—	—	58	95	2,417
Hammond .....	39	1	240	—	8,293	—	—	487	238	488	9,112	1,573
Hawker .....	1,307	17,644	183	2,739	6,873	—	—	5,728	40	935	11,635	3,440
Hergott .....	6,864	4,809	23	16	—	10	3	587	20	211	365	1,534
Hookina .....	—	—	22	—	354	—	—	605	138	66	665	271
Hoyleton .....	31	4,338	528	3	1,288	—	12	604	9	76	1,481	482
Huddleston .....	—	—	—	—	198	1,995	—	—	75	118	2,386	50

[illegible]

APPENDIX 13—continued.  
STATEMENT OF LIVESTOCK and PRINCIPAL ITEMS of MERCHANDISE FORWARDED, and TOTAL TONNAGE RECEIVED, &c.—continued.

Stations.	Livestock.			Flour.	Wheat.	Minerals.	Firewood.	Wool.	O. S. Goods Free.	All other Goods.	Total Tonnage Forwarded.	Total Tonnage Received.
	Number of Cattle.	Number of Sheep.	Number of Pigs.	Tons.	Tons.	Tons.	Tons.	Bales.	Tons.	Tons.	Tons.	Tons.
Ovingham .....	—	—	—	—	—	—	2,689	—	—	—	—	—
Owen .....	10	—	85	—	172	—	—	93	1	40	2,823	223
Parachina .....	1,431	6,871	2	—	38	642	—	1,941	23	94	1,040	556
Paratoo .....	62	5,205	—	—	—	—	59	563	11	24	204	127
Peakeville .....	6	280	202	1	1,910	—	891	139	263	351	3,431	1,099
Penola .....	59	394	3	—	2	—	—	769	27	95	247	875
Petersburg .....	36	22	278	420	6,184	—	70	11	360	1,568	8,604	17,116
Philcox Hill .....	—	—	—	—	—	786	1,057	—	864	24	2,731	5
Port Adelaide .....	27	16	170	349	915	63,150	1,823	652	40,916	110,465	217,747	169,634
Port Augusta .....	26	3	—	866	11	1,263	36	2	6,294	12,079	20,549	59,861
Port Broughton .....	—	—	—	95	10	—	—	—	—	420	525	6,663
Port Elliot .....	1	—	—	1	—	16	—	9	10	68	96	267
Port Pirie .....	19	5	469	832	—	65,536	—	—	10,083	58,256	134,707	135,209
Port Wakefield .....	4	100	696	366	60	5	95	—	861	2,020	3,407	10,078
Quorn .....	120	3,723	29	762	5,084	51	92	79	2,445	1,734	10,181	8,246
Reedy Creek .....	—	—	—	—	—	—	147	391	147	68	409	143
Rendelsham .....	2	—	—	1	—	—	14	65	2	614	641	167
Riverton .....	42	8,962	576	923	479	91	12	160	194	1,323	3,043	3,744
Roseworthy .....	281	1,855	130	201	201	—	6	8	123	143	474	600
Saddleworth .....	62	3,353	84	123	1,321	462	—	1,673	95	562	2,858	2,175
Saints .....	—	588	—	—	419	—	86	—	2	216	724	121
Salisbury .....	6	141	—	872	297	—	27	25	26	1,389	2,616	6,331
Salta .....	—	—	—	—	37	—	671	8	456	26	1,191	311
Sandergrove .....	—	—	—	—	—	—	481	—	3	7	491	20
Serviceeton .....	5	4	—	64	68	—	—	11	16	91	231	1,386
" (through) .....	198	3,139	2	66	1,236	2	—	—	—	1,306	2,610	—
Seven-Mile Siding (Western System) .....	—	160	133	—	81	—	109	8	46	1	239	17
Six-Mile (Northern System) .....	—	—	—	—	—	—	—	—	—	—	—	—
" (Port Broughton Line) .....	—	—	—	—	—	—	—	—	—	—	—	—
Smithfield .....	17	3,091	7	—	145	—	—	—	—	—	145	—
Snuggery .....	—	—	—	—	265	6	—	186	28	147	477	342
Snowtown .....	11	722	694	—	14	—	—	—	—	38	62	70
South Hummocks .....	3	389	390	182	4,454	—	—	466	101	485	6,297	1,437
Stewart's Range .....	—	3	—	—	994	—	—	67	47	86	1,139	103
Stockade .....	—	—	—	—	—	—	—	152	84	138	242	40
Stockport .....	1	226	9	—	218	—	6	—	1,319	21,100	22,419	35
Stockyard Creek .....	18	—	241	—	243	—	—	14	21	41	286	337
Strathalbyn .....	315	9,372	1,139	18	813	435	1,878	59	11	38	2,180	121
Strangways .....	1	—	—	—	—	—	641	622	387	834	3,227	2,261
Stirling .....	235	14,165	—	—	—	—	—	6	1	16	19	50
Stuart's Creek .....	—	—	—	—	—	—	—	—	—	115	115	118
Tailam Bend .....	619	2,260	—	—	2	—	—	—	—	1	1	30
									150	26	178	216

	8	45	69	4	534	270	10	1,292	40	511	1,294	209
Tantanoola.....	119	1,967	370	—	985	—	7	106	248	1,265	2,797	606
Tarlee.....	835	14,428	603	—	2,811	—	39	607	842	1,567	3,941	4,073
Terowie (Midland System).....	201	3,480	392	—	1,864	—	16	88	55	315	2,264	1,307
Three-Mile (Northern System).....	—	—	—	—	—	—	—	—	—	—	—	—
Three-Mile (Port Broughton Line).....	—	—	—	—	—	—	100	—	—	—	100	—
Two-Mile (Port Broughton Line).....	—	—	—	—	—	—	—	—	—	—	—	—
Tintinara.....	—	—	—	—	—	—	—	—	—	—	—	—
Uooloo.....	—	—	—	—	—	—	—	—	—	—	—	—
Uooloo.....	—	—	—	—	—	—	—	—	—	—	—	—
Victor Harbor.....	—	—	44	—	92	—	—	134	—	25	6	85
Wallaroo.....	37	1,782	25	—	1	4,562	5	258	457	1,326	6,382	7,771
Wallaroo.....	—	2	—	35	189	2,126	2,612	146	530	3,137	8,655	56,818
Walloway.....	—	—	—	—	3,686	12	4	67	—	476	4,191	240
Wanganna.....	—	—	—	—	—	24	—	—	—	3	28	17
Warrabrook.....	6	—	120	—	912	420	1,524	—	1	796	3,666	241
Warrabrook.....	350	6	4	5	943	1	—	64	11	830	841	1,798
Wadleys.....	9	6,020	78	—	1,481	—	953	150	364	224	2,529	1,131
William Creek.....	—	727	—	—	—	—	2,636	6	1	11	4,130	107
William Creek.....	921	—	—	—	—	—	—	901	35	41	227	646
Willeroo.....	8	—	30	—	1,544	1,193	—	133	23	21	2,806	1,113
Wilson.....	—	—	—	3	5,685	—	16	1,236	36	65	5,959	875
Winminnie.....	—	—	—	—	—	—	—	160	6	2	35	40
Winminnie.....	—	—	—	—	—	—	—	739	1	8	135	166
Wirrawilla.....	—	—	—	—	—	1	—	—	—	—	—	—
Wirrawilla.....	—	—	—	—	33	—	—	—	4	64	101	59
Woolah.....	82	—	4	113	304	—	4	75	237	144	813	764
Woolah.....	73	662	—	169	484	—	—	676	29	171	949	1,133
Woolah (South-Eastern System).....	—	303	60	—	212	—	1,793	26	—	9	2,019	65
Woods.....	—	—	—	—	—	—	—	—	—	35	35	2,796
Woodville.....	—	—	—	—	—	—	164	—	—	19	239	377
Woodward Flat.....	—	—	—	—	—	—	—	—	—	—	—	—
Yarcowie.....	26	2	60	457	857	—	—	1,440	23	322	1,904	620
Yongala.....	10	1	465	162	9,746	5	43	343	35	322	10,372	1,363
Yunta.....	5	2	—	—	—	—	—	1,350	159	171	664	1,643
<b>Total</b> .....	<b>31,150</b>	<b>391,128</b>	<b>23,423</b>	<b>36,401</b>	<b>204,317</b>	<b>381,006</b>	<b>97,115</b>	<b>141,152</b>	<b>95,949</b>	<b>415,809</b>	<b>1,253,850</b>	<b>1,077,198</b>

N.B.—To arrive at the grand total of number and tonnage, as per statements Nos. 10 and 12, it is necessary to add to this return 17,187 cattle, 187,007 sheep, 6,824 pigs, and 253,896 tons, these being the whole additional numbers and weight obtained by passage of goods from one line to another which cannot fairly appear as forwarded by the junction station.

Adelaide, September 10th, 1891.

J. PICKERING, Junr., Comptroller of Accounts.

## Appendix 14.

## COMPARATIVE SUMMARY of WORKING EXPENDITURE, REVENUE, and PERCENTAGE of NET REVENUE on CAPITAL EXPENDED—ALL SYSTEMS, EXCEPT PALMERSTON LINE.

Systems.	Motive Power.	Year ended June 30th.	Miles Open.	Average Miles Open for Year.	Train Mileage.	General Charges.				Traffic Expenses.				Horse Power and Locomotive Power.				Carriages and Wagons—Repairs and Renewals.			
						Expenditure.	Per Cent. to Revenue.	Cost per Train Mile.	Cost per Average Mile Open.	Expenditure.	Per Cent. to Revenue.	Cost per Train Mile.	Cost per Average Mile Open.	Expenditure.	Per Cent. to Revenue.	Cost per Train Mile.	Cost per Average Mile Open.	Expenditure.	Per Cent. to Revenue.	Cost per Train Mile.	Cost per Average Mile Open.
Midland .....	Loco.	1890	230 37	230 37	{ H. 7,868 L. 1,092,723 H. 1,773 L. 1,215,087 }	6,986 1 10	1'91	1'52	310	74,358 3 5	19'46	15'57	310	71,224 11 11	19'43	15'54	309	17,356 12 7	4'73	3'79	75
		1891	231 68	231 68	{ H. 7,723 L. 1,115,087 }	6,440 10 9	1'59	1'30	29	72,292 2 11	17'39	14'23	312	{ H. 504 2 5 L. 93,212 10 2 }	22'65	{ 15'67 480 18'45 404 }	{ 15'67 480 18'45 404 }	18,966 6 4	4'66	3'73	83
Western .....	{ Horse and Loco.	1890	157 73	157 73	{ H. 68,933 L. 1,014,593 }	1,101 12 9	2'32	1'61	7	9,465 19 1	19'95	13'83	69	{ H. 3,268 12 9 L. 6,149 11 6 }	19'91	{ 12'58 166 14'57 45 }	{ 12'58 166 14'57 45 }	1,690 19 7	3'56	2'47	11
		1891	157 73	157 73	{ H. 82,983 L. 1,046,567 }	984 16 6	1'94	1'34	6	9,245 19 0	19'23	13'26	59	{ H. 2,560 7 9 L. 6,515 6 6 }	18'88	{ 9'76 128 14'97 47 }	{ 9'76 128 14'97 47 }	2,503 13 3	5'21	3'09	16
Northern .....	Loco.	1890	743 28	720 57	1,314,523	8,640 7 3	1'80	1'58	12	35,659 14 1	7'40	6'51	49	65,238 12 11	13'54	11'91	90	6,900 3 3	1'43	1'26	20
		1891	797 62	769 36	1,615,802	7,848 5 10	1'34	1'09	10	48,070 4 4	7'07	6'24	55	86,403 11 5	14'52	12'81	113	9,517 13 3	1'60	1'41	13
Southern .....	Loco.	1890	252 36	252 36	574,336	3,067 12 5	3'31	1'66	16	17,020 16 0	14'21	7'11	67	32,943 3 1	27'50	13'77	131	8,610 10 10	7'19	3'60	34
		1891	252 36	252 36	613,044	2,903 3 8	2'17	1'14	12	18,910 18 11	14'11	7'40	75	44,166 5 1	33'96	17'29	175	9,090 1 5	6'78	3'68	36
South-Eastern .....	Loco.	1890	215 78	215 78	141,735	2,405 18 5	9'17	4'07	11	5,120 7 2	19'52	8'67	24	5,793 3 4	22'09	9'81	27	948 10 7	3'62	1'61	4
		1891	215 78	215 78	141,768	1,588 2 6	5'24	2'60	7	5,351 16 0	18'26	9'06	25	7,199 12 4	24'56	13'19	33	1,045 8 1	3'56	1'77	6
Port Broughton .....	Horse	1890	10 0	10 0	9475	69 10 4	3'44	1'76	7	363 16 9	18'02	9'22	36	593 15 7	29'41	15'04	59	444 2 7	22'00	11'35	45
		1891	10 0	10 0	7,789	33 7 1	1'98	1'18	4	388 6 6	20'23	11'96	39	376 0 4	19'59	11'69	38	11 0 8	5'57	5'84	1
All Systems .....	—	1890	1,610 12	1,587 41	{ Horse Loco. ... 80,276 Loco. ... 3,224,088 }	23,171 3 0	2'22	1'68	15	138,988 16 6	13'32	10'09	88	{ H. 3,802 8 4 L. 18,349 2 9 }	17'75	{ 12'00 130 13'50 116 }	{ 12'00 130 13'50 116 }	35,950 19 5	3'44	2'61	23
		1891	1,665 72	1,637 46	{ Horse Loco. ... 78,447 Loco. ... 3,690,778 }	19,401 6 4	1'69	1'24	12	148,259 7 8	12'11	9'44	91	{ H. 3,440 10 6 L. 237,489 5 6 }	19'68	{ 11'73 111 15'41 148 }	{ 11'73 111 15'41 148 }	41,134 3 0	3'36	2'63	25

## APPENDIX

a b The train mileage "Northern" includes 4 95,304 and a 123,077 miles on Silverton tramway. As the company's permanent way was maintained by themselves, calculations respecting maintenance are based on S.A. Railway train mileage only; but all other train mileage calculations for Northern System include the Silverton tramway mileage. The items for locomotive power, carriages and wagon repairs, "Northern", are burdened with the cost of working the Silverton tramway (thirty-five miles).



APPENDIX 14—continued.  
COMPARATIVE SUMMARY of WORKING EXPENDITURE, REVENUE, and PERCENTAGE of NET REVENUE on CAPITAL EXPENDED—ALL SYSTEMS,  
EXCEPT PALMERSTON LINE.

Systems.	Year ended June 30th.	Maintenance Branch.				Total Working Expenditure.				Total Revenue.	Excess of Revenue over Working Expenditure.		Excess of Working Expenditure over Revenue.	Net Revenue per Train Mile.	Net Revenue per Average Mile Open.	Cost of Construction and Additional Requirements on Miles Open for Traffic.	Per Cent. of Net Revenue on Additional Requirements.
		Expenditure.	Per Cent. to Revenue.	Cost per Train Mile.	Cost per Average Mile Open.	Expenditure.	Per Cent. to Revenue.	Cost per Train Mile.	Cost per Average Mile Open.		\$	¢.					
Midland.....	1890	35,987 1 4	9.82	7.85	1.56	202,912 11 1	55.35	44.27	880	366,614 12 11	163,702 1 10	—	—	36	710	2,760,119 8 3	5.93
	1891	57,969 13 7	13.96	11.40	260	249,565 5 2	60.04	49.08	1,077	415,646 18 10	166,061 13 8	—	—	23	716	2,891,288 2 4	5.80
Western.....	1890	12,277 4 7	25.87	17.94	78	33,984 0 3	71.61	40.66	215	47,459 9 2	13,475 8 11	—	—	20	85	763,835 19 7	1.76
	1891	10,611 8 11	22.87	16.21	67	32,371 11 11	67.23	46.41	206	46,081 11 8	16,709 19 9	—	—	23	99	819,864 8 1	1.92
Northern .....	1890	54,591 16 1	11.33	10.75	76	171,039 13 7	35.50	31.23	217	481,763 3 2	310,732 9 7	—	—	57	431	3,586,351 0 5	8.66
	1891	69,700 6 0	10.08	9.46	78	205,043 0 10	34.46	31.14	267	595,029 10 1	389,987 8 3	—	—	58	507	4,019,707 9 1	9.70
Southern .....	1890	29,356 16 10	24.67	12.35	117	100,309 8 4	76.88	38.49	365	119,791 8 4	27,622 9 2	—	—	12	110	2,263,087 19 9	1.22
	1891	25,328 19 8	18.90	9.21	100	100,309 8 4	74.92	39.30	298	124,003 10 4	22,604 2 0	—	—	13	123	2,416,293 19 6	1.29
South-Eastern.....	1890	12,897 5 9	49.16	21.84	60	27,165 5 3	103.56	46.00	126	26,331 0 8	—	934 4 7	—	—	—	809,272 7 6	—
	1891	13,595 15 1	46.27	22.01	63	23,728 14 0	97.99	46.63	133	29,313 15 0	590 1 6	—	—	1	2	880,744 0 6	0.07
Port Broughton .....	1890	341 18 1	16.94	8.66	34	1,813 3 4	89.81	45.93	121	2,018 15 5	205 12 1	—	—	5	21	46,082 4 6	1.42
	1891	238 10 11	13.46	7.85	24	1,022 5 6	64.82	32.72	108	1,918 18 0	666 13 6	—	—	27	87	64,295 15 4	1.60
Discount and floating charges	1891	—	—	—	—	—	—	—	—	—	—	—	—	—	—	245,696 8 2	—
All Systems .....	1890	145,552 2 8	13.95	10.58	92	529,004 12 8	50.68	38.42	333	1,043,578 9 8	514,573 27 0	—	—	37	324	10,234,749 0 0	5.03
	1891	167,444 12 9	13.68	10.66	102	617,179 5 9	50.42	39.20	277	1,223,999 8 11	Net Revenue, \$606,819 184. 2d.	—	—	39	272	11,396,838 18 0	5.22

\* The discounts and floating charges (amount about raised, see Appendix 4) are for the first time included in the Capital Expenditure.  
J. PICKERING, JUN., Comptroller of Accounts.

Adelaide, September 2nd, 1891.

## Appendix 13.

## ANALYSIS of WORKING EXPENSES for the YEAR ended JUNE 30th, 1891.

System—	Midland.	Western.	Northern.	Southern.	South-Eastern.	Port Broughton.	All Systems.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<b>GENERAL CHARGES.</b>							
Commissioners' office .....	1,925 5 3	284 15 0	2,700 15 9	985 12 2	247 18 1	12 4 10	6,156 11 1
Comptroller's office .....	3,378 8 1	491 4 10	4,575 11 1	1,718 10 7	441 12 3	26 2 3	10,631 9 1
Fire insurance and prevention .....	18 2 8	—	—	—	—	—	18 2 8
Unforeseen (including loss on Largs Bay line, £882 4s. 7d.) .....	1,318 14 9	158 16 8	71 19 0	199 0 11	76 16 7	—	1,825 7 11
Removal of locomotive sheds and re-erecting at Naracoorte .....	—	—	—	—	769 15 7	—	769 15 7
<b>Totals .....</b>	<b>6,640 10 9</b>	<b>934 16 6</b>	<b>7,348 6 10</b>	<b>2,903 3 8</b>	<b>1,536 2 6</b>	<b>38 7 1</b>	<b>19,401 6 4</b>
<b>TRAFFIC EXPENSES.</b>							
<b>Coaching—Salaries and wages .....</b>	<b>15,079 18 0</b>	<b>794 14 0</b>	<b>6,276 11 3</b>	<b>3,482 12 8</b>	<b>682 10 1</b>	<b>—</b>	<b>26,316 6 0</b>
Clothing .....	505 11 0	37 16 7	229 0 4	106 5 0	15 11 2	0 3 1	894 7 2
Parcels .....	543 6 0	—	21 18 9	46 14 7	21 19 8	—	633 19 0
Fuel and stores .....	4,886 12 2	148 9 8	1,452 17 1	944 19 4	172 7 1	—	7,355 5 4
Repairs .....	666 15 1	79 0 1	303 16 3	243 13 3	165 5 1	—	1,458 8 9
Advertising .....	179 8 9	27 16 11	71 2 9	290 5 5	19 8 2	—	588 2 0
Printing and stationery .....	1,043 19 7	128 10 1	324 14 1	220 1 2	65 7 10	3 9 0	1,784 1 9
Sundries .....	319 17 2	16 7 9	510 12 8	749 5 11	8 11 1	—	1,604 14 7
Compensation .....	1,063 1 4	1 2 6	304 13 8	19 5 9	—	—	1,388 3 3
<b>Goods and Livestock—Salaries and wages .....</b>	<b>10,440 3 6</b>	<b>1,857 3 10</b>	<b>13,604 2 7</b>	<b>2,680 10 9</b>	<b>942 11 8</b>	<b>—</b>	<b>29,424 12 4</b>
Terminal .....	6,164 2 8	945 6 1	1,871 15 7	998 8 3	320 14 2	67 11 3	10,367 18 0
Horse shunting .....	3,541 18 3	639 12 1	500 6 4	257 13 8	218 2 5	69 3 9	6,226 16 6
Cartage .....	89 6 8	388 11 0	—	—	—	—	457 17 8
Clothing .....	63 6 9	10 10 5	111 10 9	28 9 9	10 13 7	—	224 11 3
Cranes .....	258 14 7	272 4 2	—	17 18 5	—	—	548 17 2
Sheets .....	880 2 10	92 16 9	1,077 4 5	211 17 5	77 10 2	—	2,339 11 7
Stores .....	700 16 10	65 18 3	569 17 11	195 14 0	27 9 0	0 4 4	1,560 0 4
Printing and stationery .....	747 13 6	180 6 10	456 6 5	233 5 7	94 12 10	5 8 4	1,706 13 6
Sundries .....	437 1 10	—	573 11 8	332 13 1	1 0 0	—	1,344 6 7
Compensation .....	80 4 6	4 15 8	106 5 10	17 2 7	16 7 0	—	224 15 7
Advertising .....	29 19 3	1 5 6	8 12 9	3 18 0	2 6 6	—	46 2 0
<b>General—General Traffic Manager's office .....</b>	<b>1,004 7 5</b>	<b>137 13 6</b>	<b>1,335 8 1</b>	<b>503 5 3</b>	<b>116 7 7</b>	<b>6 7 11</b>	<b>3,103 9 9</b>
Salaries and wages .....	13,417 1 3	2,456 18 10	5,866 6 6	3,479 7 11	1,672 1 11	180 0 0	27,071 16 5
Holidays .....	1,881 13 10	175 2 9	733 7 2	412 18 2	170 5 7	4 17 6	2,878 5 0
Sick-pay .....	202 4 3	50 15 11	168 8 11	56 4 2	0 8 11	2 12 6	480 14 8
Signals .....	6,460 13 10	4 1 5	2,183 14 7	2,083 18 4	203 13 5	—	10,936 1 1
Greasing and oiling .....	1,710 17 5	245 0 5	1,668 7 5	697 16 11	87 0 7	21 0 8	4,429 3 11
Sundries .....	643 4 8	504 18 0	1,842 11 7	606 13 7	239 10 6	27 8 2	3,864 6 6
<b>Totals .....</b>	<b>72,292 2 11</b>	<b>9,245 19 0</b>	<b>42,070 4 4</b>	<b>18,910 18 11</b>	<b>5,351 16 0</b>	<b>388 6 6</b>	<b>148,259 7 8</b>

## HUMAN POWER.

Wages.....	504	2	5	1,628	14	10	—	—	—	—	205	5	8	2,233	2	11
Holidays.....	—	—	—	55	7	0	—	—	—	—	9	0	0	64	7	0
Sick pay.....	—	—	—	7	1	0	—	—	—	—	—	—	—	7	16	0
Forage, water, &c. ....	—	—	—	883	2	8	—	—	—	—	144	18	5	1,028	1	1
Horses replaced.....	—	—	—	91	2	3	—	—	—	—	16	1	3	107	3	6
Totals .....	504	2	5	2,660	7	9	—	—	—	—	376	0	4	3,440	10	6

## LOCOMOTIVE POWER.

General—Superintendence and office expenses.....	3,885	14	6	334	7	10	4,268	5	3	1,715	0	9	394	14	6	10,548	2	10
Running—Wages.....	26,039	19	10	2,468	5	5	31,302	1	5	11,387	17	5	2,449	8	10	72,447	12	11
Holidays.....	814	11	2	82	12	3	1,127	10	0	332	12	10	81	0	0	2,438	6	9
Sick pay.....	125	13	4	10	0	3	139	14	5	43	1	0	10	14	0	329	3	0
Bonuses.....	239	19	5	20	0	0	210	0	0	180	0	7	20	0	0	670	0	0
Oil, tallow, &c. ....	3,819	11	10	230	0	0	4,772	6	11	1,944	7	4	168	16	3	10,925	2	4
Fuel .....	37,674	14	3	2,171	14	9	28,108	5	2	19,945	8	1	1,641	0	10	89,541	3	1
Water .....	2,892	17	0	305	2	6	2,428	14	0	810	3	5	457	6	11	6,894	3	10
Repairs—Wages.....	11,602	2	4	433	18	1	9,169	5	4	4,767	3	7	1,393	1	7	27,365	10	11
Material .....	3,791	5	6	311	19	5	2,898	8	3	1,977	1	5	487	4	1	9,465	18	8
Shop charges.....	2,469	4	11	109	17	7	1,960	5	11	1,065	5	7	305	19	2	5,910	13	2
Accidents .....	862	2	6	—	—	—	1	7	4	0	17	1	—	—	—	864	6	11
Additions and alterations.....	44	13	7	37	8	5	19	6	11	7	6	0	0	6	2	109	1	1
Totals .....	93,212	10	2	6,515	6	6	86,405	11	5	44,166	5	1	7,199	12	4	237,499	5	6

## CARRIAGES AND WAGONS.

Coaching Stock: Repairs—Superintendence and office expenses.....	471	18	11	46	9	10	158	2	7	455	5	2	33	9	11	1,165	6	5
Wages.....	4,415	7	4	432	3	7	1,324	12	4	3,691	19	8	334	17	9	10,199	0	8
Material .....	1,627	13	5	402	14	6	611	16	10	1,462	13	0	93	9	6	4,098	7	3
Accidents .....	108	15	4	3	16	1	—	—	—	29	17	9	0	15	4	143	4	6
Shop charges.....	904	3	3	92	19	4	316	6	9	881	12	0	67	0	5	2,262	1	9
Additions and alterations.....	351	12	7	32	1	11	424	13	10	266	3	0	—	—	—	1,064	11	4
Goods and Livestock: Repairs—Superintendence and office expenses.....	468	13	5	83	11	6	316	4	6	132	12	3	34	18	8	1,035	9	9
Wages.....	4,412	18	5	818	16	9	2,673	2	9	1,277	17	3	327	14	5	9,514	4	5
Material .....	2,023	16	0	396	11	4	2,219	0	9	685	10	10	79	12	2	5,310	8	5
Accidents .....	92	17	8	21	3	1	180	13	6	10	7	10	—	—	—	305	2	1
Shop charges.....	895	10	6	167	3	9	632	10	0	253	4	2	69	18	0	2,019	5	6
Additions and alterations.....	402	4	0	6	1	7	660	9	5	62	18	6	3	11	11	1,125	5	6
Four second-class standard bogie carriages to replace eight thirds.....	2,845	3	11	—	—	—	—	—	—	—	—	—	—	—	—	2,845	3	11
One first-class saloon carriage to replace No. 12 .....	31	18	10	—	—	—	—	—	—	—	—	—	—	—	—	31	18	10
One composite lavatory carriage to replace Nos. 1 and 2 .....	13	6	8	—	—	—	—	—	—	—	—	—	—	—	—	13	6	8
Building one covered van to replace No. 76, worn out.....	0	6	1	—	—	—	—	—	—	—	—	—	—	—	—	0	6	1
Totals .....	18,966	6	4	2,503	13	3	9,617	18	3	9,090	1	5	1,045	8	1	41,134	3	0

## MAINTENANCE BRANCH.

General—Superintendence and office expenses.....	3,205	6	3	1,450	16	0	5,424	18	0	2,352	10	1	1,784	3	9	14,217	14	1
Holidays.....	640	1	10	309	15	3	1,274	18	3	574	1	5	325	5	6	3,024	5	3
Sick pay .....	54	12	11	34	16	5	127	7	7	68	3	3	44	11	3	339	11	5
Way—Ballasting .....	3,479	4	6	2,626	9	4	8,003	1	3	3,014	19	2	2,539	11	5	174	16	0
Totals .....	7,388	21	20	5,424	50	2	15,238	39	3	6,528	33	4	4,666	26	4	19,838	0	8

APPENDIX

APPENDIX 15—continued.  
ANALYSIS of WORKING EXPENSES for the YEAR ended JUNE 30th, 1891—continued.

System—	Midland.	Western.	Northern.	Southern.	South-Eastern.	Port Broughton.	All Systems.
	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
Way—Sleepers .....	7,328 18 6	—	779 10 10	64 13 6	85 3 8	—	8,766 6 6
Rails and all other way material .....	968 11 10	—	834 16 10	165 8 1	36 1 11	8 1 9	2,013 0 5
Platelaying .....	21,921 14 1	3,430 10 0	26,319 0 7	11,125 13 2	6,177 4 9	14 3 7	68,088 6 2
Relaying line between Port Adelaide station and Jervois Bridge .....	230 7 7	—	—	—	—	—	230 7 7
Super-elevation of curves—North line .....	1,616 9 4	—	—	—	—	—	1,616 9 4
Relaying between Gawler and Kapunda .....	3,702 3 7	—	—	—	—	—	3,702 3 7
“ “ Roseworthy and Terowie .....	675 6 8	—	—	—	—	—	675 6 8
“ “ wharf sidings, Port Adelaide .....	73 3 7	—	—	—	—	—	73 3 7
“ “ passenger sidings, Stockport, Tarlee, and Manoores .....	220 18 8	—	—	—	—	—	220 18 8
Raising level of Ellen-street, Port Pirie .....	—	—	184 18 2	—	—	—	184 18 2
Notching and squaring rails and cutting heads of fishbolts .....	—	—	676 6 3	—	—	—	676 6 3
Relaying curves in Pichi Richi Pass .....	—	—	3,458 12 9	—	—	—	3,458 12 9
Relaying and strengthening Strathalbyn and Victor Harbor line .....	—	—	150 18 5	—	—	—	150 18 5
Works—Slips, flood repairs, and accidents .....	—	—	—	2,447 18 7	—	—	2,447 18 7
Clearing and grass-burning .....	99 12 11	—	461 6 9	148 7 10	11 16 0	—	721 2 6
Fencing .....	969 4 9	566 5 1	1,355 12 4	1,045 6 10	593 18 4	—	4,530 5 4
Earthworks .....	475 2 9	127 2 1	214 0 2	113 0 11	207 5 3	14 2 10	1,150 14 0
Bridges, viaducts, culverts, roads, and level crossings .....	127 7 8	381 2 6	4,763 11 3	499 5 2	411 19 11	—	6,153 6 6
Jetties and wharves .....	2,831 14 4	210 16 4	1,523 5 7	602 7 5	290 19 5	—	5,459 3 1
Tree-culture .....	—	273 1 8	13 1 11	60 1 10	21 6 0	15 8 2	382 19 7
Renewing fencing east side of Port Adelaide station yard .....	1 17 6	5 1 7	33 16 5	4 18 11	3 11 0	—	49 5 5
“ “ on North line .....	132 19 11	—	—	—	—	—	132 19 11
Strengthening fencing on North line .....	2,416 2 4	—	—	—	—	—	2,416 2 4
Refencing line between Port Wakefield and seven-miles siding .....	3 16 1	9 15 7	—	—	—	—	3 16 1
Replacement of bridge piers and girders .....	—	—	—	—	—	—	—
Buildings—Traffic stations .....	2,371 5 0	168 4 7	813 3 11	480 2 2	150 12 8	—	3,845 8 1
“ “ goods sheds and cattle ramps .....	527 4 6	69 9 0	177 11 3	111 6 5	35 4 2	—	910 15 4
“ “ signal boxes .....	88 1 9	—	0 7 10	83 19 1	0 5 9	—	172 14 5
Horse-power, stables, &c. ....	—	74 12 7	—	—	—	—	74 12 7
Locomotive and carriage houses and offices .....	74 9 6	125 15 0	109 1 6	7 6 10	15 13 5	—	332 6 3
“ “ workshops and erections .....	367 6 3	23 1 10	108 2 0	137 11 9	32 9 11	—	668 11 9
Storekeepers' houses and offices .....	—	—	5 10 4	—	—	—	5 10 4
“ “ storehouses and erections .....	7 10 7	—	—	—	—	—	7 10 7
Maintenance houses and offices .....	340 7 3	168 18 6	762 10 6	361 13 8	78 16 4	2 2 2	1,714 8 5
“ “ workshops and erections .....	—	—	17 13 8	6 19 11	9 14 5	—	34 8 0
Removing signal cabin, &c., to Alberton crossing .....	14 3 8	—	—	—	—	—	14 3 8
Rolling-stock—Trucks, trolleys, and velocipedes .....	349 18 3	83 3 7	542 17 6	194 14 7	108 12 7	0 18 9	1,280 5 3
Machinery, Plant, Tools, &c.—Cranes and weighbridges .....	254 18 4	55 0 9	99 0 10	204 11 1	117 11 0	8 18 8	740 0 8
Signals, interlocking gear, &c. ....	1,201 15 2	—	68 6 2	506 18 2	17 17 0	—	1,794 18 6
Turntables and ashpits .....	227 17 7	47 10 0	77 0 0	25 14 4	3 13 9	—	381 15 8
Engines, portable and fixed .....	168 11 9	—	—	—	—	—	168 11 9
Appliances, machinery, &c., not in the foregoing .....	44 3 3	25 18 10	—	19 1 1	1 13 1	—	90 16 3
Block signals, wires, and other electrical appliances .....	793 13 8	—	420 4 7	580 1 4	—	—	1,793 19 7
Altering signal lamps to burn kerosene .....	251 11 10	—	—	—	—	—	251 11 10
Water—Reservoirs, wells, mains, hydrants, &c. ....	276 7 9	374 2 5	910 9 7	338 8 11	457 19 5	—	2,367 8 1
Fuel—Coal stages .....	27 8 11	—	1 4 0	3 13 9	—	—	32 6 8
Totals .....	67,969 12 7	10,611 8 11	59,700 6 0	26,398 19 3	13,696 15 1	238 10 11	167,444 12 9
Grand totals .....	249,565 6 2	32,371 11 11	205,042 0 10	100,399 8 4	28,728 14 0	1,062 5 6	617,179 5 9

J. PICKERING, Junr., Comptroller of Accounts.

Adelaide, September 2nd, 1891.

## Appendix 16.

STATEMENT of EXPENDITURE for all RAILWAY PURPOSES during the YEAR ended JUNE 30th, 1891  
(exclusive of Palmerston Line).

Details.		Working Expenditure out of General Revenue.	Expenditure out of General Revenue Debitable to Capital.	Loan Expenditure.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<b>MIDLAND SYSTEM.</b>					
As per return No. 15 .....	—	249,585 5 2			
Additional requirements .....	1,985 0 10				
Additional rooms to maintenance cottages ..	240 8 9				
Electric lighting plant for weeding lines ....	122 9 6				
Preliminary surveys for works, buildings, &c.	251 14 3				
Cottages, Dry Creek and Wasleys .....	785 0 5				
Three 10ft. culverts, near Wasleys .....	245 8 3				
Cabin for shunters, Adelaide yard .....	102 19 8				
Additional maintenance cottages .....	14 4 2				
Lighting carriages with gas (plant for) .....	19 11 3				
Additional signalling accommodation .....	41 9 1				
Improvements to broad-gauge weeding machine	66 15 4				
Fitting up experimental train with electrical communication .....	142 6 0				
Purchase of land, hundred of Gilbert .....	250 0 0				
Room for check porters, Adelaide .....	177 8 7				
Suction pipes at reservoirs .....	68 1 3				
Kitchen, Hamley Bridge refreshment-room ..	13 2 1				
Alteration of parallel bars to standard lengths of 36ft. ....	47 16 7				
Closet and urinal accommodation, Bowden ..	18 12 2				
Signalman's residence, Salisbury Cemetery ..	3 13 7				
		—	4,566 1 9		
Additional requirements—Act 449 of 1888 ..	31,534 9 4				
Act 491 of 1890 ..	21,804 12 1				
Glanville and Largs Bay railway and jetty ..	11,636 17 11				
Coalshed wharf, Port Adelaide .....	34,727 6 3				
	99,703 5 7				
	£ s. d.				
Deduct credit on Act 129 of 1878 ..	858 16 4				
189 of 1880 ..	54 16 6				
227 of 1881 ..	153 2 0				
362 of 1885 ..	83 18 5				
	1,150 13 3	—	—	98,552 12 4	352,703 19 3
<b>WESTERN SYSTEM.</b>					
As per return No. 15 .....	—	32,371 11 11			
Additional requirements .....	855 9 0				
Verandahs to maintenance cottages .....	271 3 4				
Blocks of maintenance cottages .....	17 7 9				
New goods shed, Paskeville .....	6 19 10				
Water column, South Hummocks .....	167 14 0				
Survey of horsepower lines .....	230 9 5				
Maintenance cottages, additional rooms ....	124 7 4				
Additional works for protection of line from flood damages, Port Wakefield .....	721 16 7				
Preliminary surveys for works, buildings, &c.	0 5 9				
		—	2,395 13 0		
Port Wakefield and Kadina railway .....	0 14 0				
Additional requirements—Act 227 of 1891 ..	55 4 8				
Act 491 of 1890 ..	1,036 14 8				
Walleroo to Moonta (loco. power line) .....	1,381 0 11				
Walleroo jetty .....	38,667 10 9				
Wharf at Port Wakefield .....	11,191 10 6				
		—	—	52,332 15 6	87,100 0 5
<b>NORTHERN SYSTEM.</b>					
As per Return No. 15 .....	—	205,042 0 10			
Additional requirements .....	1,831 1 4				
Overhead tank at Port Pirie .....	137 14 8				
Additional works for protection of line from flood damages (Port Pirie Division) ....	168 12 10				
Additional works for protection of line from flood damages (Great Northern Division)	945 19 3				
Maintenance cottages, additional rooms ....	728 3 3				
New turntable, Quorn workshops .....	770 3 7				
Alterations to box wagons to carry coke ....	455 2 4				
Additions to loco. foreman's residence, Quorn	123 17 11				
Enlarging tank at Jamestown .....	0 19 1				
Preliminary surveys for works, buildings, &c.	95 11 11				
Enlarging reservoir at Jamestown .....	23 19 9				
Additions to Traffic Superintendent's Office, Port Augusta .....	24 2 5				
Additions to stationmaster's residence, Jamestown .....	0 19 0				
Constructing weeding machine .....	254 12 11				
Stationmaster's residence, Hammond .....	413 13 6				
Suction pipes at reservoirs .....	86 4 8				
Underground tanks at camps (Great Northern Division) .....	99 16 4				
Erection of stage and derrick, Port Augusta wharf .....	2 7 4				
Deviation of Pichi Richi Pass .....	178 14 1				
Cushions for second-class carriages .....	206 6 2				
		—	6,538 2 4		

## APPENDIX 16—continued.

## STATEMENT of EXPENDITURE for all RAILWAY PURPOSES—continued.

Details.		Working Expenditure out of General Revenue.	Expenditure out of General Revenue Debitable to Capital.	Loan Expenditure.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<b>NORTHERN SYSTEM—continued—</b>					
Port Pirie and Gladstone railway .....	0 3 3				
Gladstone and Laura railway .....	29 15 10				
Hergott and Strangways Springs railway ..	1,166 15 10				
Peake and Angle Pole railway .....	77,121 17 1				
Petersburg and N.S. Wales Border railway..	15,857 6 6				
Additional requirements—Act 449 of 1888..	38 2 1				
Act 491 of 1890..	47,127 17 11				
Port Pirie wharf .....	16,345 17 0				
	157,687 15 6				
Deduct credits—	£ s. d.				
Terowie and P.P. Ry. ...	165 9 6				
Pt. Augusta and G.G. Ry. ...	246 16 2				
Farina & H. Springs Ry. ...	55 8 0				
S. Springs and Peake Ry. ...	19,904 12 4				
Act 129 of 1878 .....	32 10 2				
	20,404 16 2	—	—	137,282 19 4	348,863 2 6
<b>SOUTHERN SYSTEM.</b>					
As per Return No. 15 .....	—	100,399 8 4			
Additional requirements .....	333 18 10				
Ballast boards, swamp portion of viaduct, Murray bridge .....	7 0 8				
Turntable, Port Victor .....	442 4 1				
Preliminary surveys for works, buildings, &c. ...	4 8 10				
Tree-planting, railway reserves .....	8 3 2				
Maintenance cottages, additional rooms, &c. ...	1 0 6				
Suction pipes at reservoirs .....	10 5 8				
Sheep and cattle yards, Mount Barker .....	78 9 6				
New flood openings, Tatiara Creek .....	5 6 4				
Deduct credits—	£ s. d.				
Additional accommodation, Milang ..	3 1 2				
Alteration of parallel bars, &c. ...	5 3 6				
	8 4 8	—	882 12 11		
Adelaide and Nairne railway .....	152 7 2				
Mount Barker and Strathalbyn railway ....	119 6 3				
Nairne and Victorian border railway .....	3,672 19 4				
Strathalbyn, Goolwa, and Victor Harbor railway .....	9 3 10				
Additional requirements—Act 362 of 1885..	0 16 2				
Act 391 of 1886..	120 16 0				
Act 491 of 1890..	103 5 11				
Screw-pile pier, &c., at Victor Harbor .....	27,278 0 0				
Murray bridge—Construction of .....	120,966 12 2				
	—	—	—	152,423 6 10	253,705 8 1
<b>SOUTH-EASTERN SYSTEM.</b>					
As per Return No. 15 .....	—	28,728 14 0			
Additional requirements .....	162 15 2				
New goods shed, Bendelasham .....	18 6 2				
Maintenance cottages, additional rooms, &c. ...	160 0 0				
Preliminary surveys for works, buildings, &c. ...	0 19 6				
Tree-planting, railway reserves .....	0 2 8				
Constructing weeding machine .....	265 18 3				
Overhead tank at Bull Island .....	117 1 0				
	725 2 8				
Deduct credit—Goods platform, Avenue Range ..	2 16 2				
	—	—	722 6 6		
Naracoorte and Tatiara railway .....	27 11 2				
Mount Gambier and Naracoorte railway ....	1,193 2 9				
Additional requirements, Act 491 of 1890 ..	235 9 6				
Kingston jetty .....	39,626 13 0				
Rivoli Bay jetty .....	29,693 12 2				
	70,776 8 7				
Deduct credit—Tatiara and Bordertown railway ..	27 2 1				
	—	—	—	70,749 6 6	100,300 7 0
<b>PORT BROUGHTON LINE.</b>					
As per Return No. 15 .....	—	1,052 5 6			
Additional requirements .....	14 1 1				
Port Broughton jetty—Construction of ....	1,366 9 6				
	—	—	1,380 10 7		
Do. do. ....	—	—	—	3,833 0 3	6,275 11 4
PARACHILNA TO THE RANGES .....	—	—	—	21 4 11	21 4 11
Totals .....	—	617,179 5 9	16,485 7 1	515,195 5 8	1,148,859 18 6

The Loan Expenditure in this statement includes the cost of the Murray bridge and various jetties and wharves (total, £322,339 0s. 2d.), originally provided as apart from Railways, but subsequently utilised by the Railway Department, and now charged to Railway Capital Account.

Adelaide, August 31st, 1891.

J. PICKERING, Jun., Comptroller of Accounts.

APPENDIX

# Appendix 17.

## COMPARATIVE STATEMENT for TEN YEARS ended June 30th, 1891 (exclusive of Palmerston Line).

Year ended June 30th.	Miles Open at end of year.	Average Miles Open during the Year.	Construction and Additional Requirements.			Rolling-stock.			Horses.	Tonnage of Goods and Livestock conveyed, "On Service" Traffic.	Number of Passengers conveyed.	Gross Receipts.				Total Train Miles Run.	Gross Receipts per Train Mile
			Capital Cost, exclusive of Stores in hand, &c.	Average Cost per Mile Open.	Engines, Steam-cars, and Motors.	Coaching Stock.	Wagons.					From Coaching Traffic.	From Goods and Livestock Traffic.	Total.	Per Average Mile Open.		
1882	945½	825½	6,355,389	6,911	101	201	2,649	113	718,190	3,209,376	183,688	183,688	268,683	442,371	536	1,281,079	82-87
1883	972	852½	5,923,159	6,117	112	213	3,021	110	755,120	3,810,121	196,961	196,961	288,699	485,660	510	1,427,587	81-65
1884	1,036½	1,003½	6,683,614	6,629	118	243	3,259	116	955,973	4,301,892	221,106	221,106	335,949	557,055	555	1,732,716	77-16
1885	1,063½	1,054½	7,242,605	6,892	140	252	3,879	72	1,068,386	4,376,144	243,657	243,657	415,447	659,104	625	2,011,603	78-64
1886	1,211½	1,088	7,533,600	6,805	158	250	3,956	78	779,129	3,961,650	222,923	222,923	326,169	549,092	505	1,951,882	67-52
1887	1,419½	1,221½	8,461,274	6,397	176	257	4,514	77	844,594	3,866,452	227,091	227,091	368,101	595,192	487	2,102,866	67-93
1888	1,500	1,453	9,396,633	6,451	179	284	4,627	75	988,275	3,846,127	307,369	307,369	576,344	883,713	608	2,724,804	77-84
1889	1,543	1,501½	9,720,078	6,418	186	286	4,806	76	955,671	4,312,047	291,766	291,766	595,299	887,065	591	3,063,135	69-73
1890	1,610½	1,587½	10,234,749	6,398	202	300	5,160	80	1,303,900	4,805,834	316,396	316,396	727,482	1,043,878	658	3,304,364	75-82
1891	1,666	1,637½	11,398,839	6,842	216	325	5,383	79	1,533,218	6,296,991	341,267	341,267	882,732	1,223,999	747	3,769,225	77-94
Totals	12,967	—	—	—	—	—	—	—	9,902,456	41,285,734	2,552,224	2,552,224	4,774,905	7,327,129	—	23,359,251	75-71
Average	1,297	—	—	—	—	—	—	—	990,246	4,128,573	255,222	255,222	477,491	732,713	—	2,836,925	—

## COMPARATIVE STATEMENT for TEN YEARS.—continued.

Year ended June 30th.	General Charges.		Traffic Expenses.		Horse and Locomotive Power.		Carriages and Wagons.		Way and Works.	Total Working Cost.			Net Earnings.		
	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per Train Mile.	Per Average Mile Open.	Per cent. on Capital Cost.	Per cent. on Capital Cost.
1882	12,900	2-92	88,448	19-99	91,449	20-67	19,528	4-42	92,507	20-91	304,832	68-91	137,539	26	2-57
1883	12,444	2-56	99,466	20-46	96,538	19-86	24,258	5-00	101,085	20-81	333,790	68-73	161,870	26	2-56
1884	16,019	2-88	106,367	19-09	117,831	21-16	25,648	4-59	106,422	19-10	372,187	66-81	184,868	26	2-77
1885	16,560	2-51	110,981	16-84	136,520	20-71	30,515	4-63	109,223	16-57	403,800	61-26	255,303	31	3-53
1886	20,718	3-77	104,337	19-00	118,610	21-60	27,714	5-05	99,275	18-08	370,853	67-50	178,438	22	2-37
1887	16,568	2-79	104,619	17-68	123,183	20-69	28,027	4-71	109,879	18-46	382,306	64-23	212,886	24	2-52
1888	19,690	2-23	121,427	13-74	148,602	16-82	28,329	3-20	114,226	12-93	432,274	48-92	451,439	40	4-80
1889	21,716	2-45	128,104	14-44	167,889	18-93	32,757	3-69	142,860	16-10	491,326	55-61	393,739	31	4-06
1890	23,171	2-22	138,989	13-32	186,242	17-75	36,951	3-44	146,652	13-95	629,005	50-68	614,874	37	5-03
1891	19,401	1-59	148,259	12-11	240,940	19-68	41,134	3-36	167,445	13-68	617,179	50-42	606,820	39	5-32
Totals	179,217	25-92	1,150,997	168-59	1,426,804	197-88	293,762	42-09	1,188,574	170-59	4,239,352	603-07	3,087,776	302	—
Average	17,922	2-59	115,100	16-66	142,680	19-79	29,376	4-21	118,857	17-06	423,935	60-31	308,777	30	—

Adelaide, September 3rd, 1891.

J. PICKERING, JUN., Comptroller of Accounts.



Appendix 18.

STATEMENT of REVENUE, WORKING EXPENDITURE, and INTEREST on BONDS from the COMMENCEMENT to JUNE 30th, 1891 (exclusive of Palmerston Line).

System.	Revenue.	Working Expenditure.	Excess of Revenue over Working Expenditure.	Excess of Working Expenditure over Revenue.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Midland.....	6,448,166 5 7	4,540,338 9 9	1,907,927 15 10	—
Western .....	590,436 15 2	470,865 8 8	119,571 6 6	—
Northern .....	2,775,781 14 10	1,167,735 12 5	1,608,046 2 5	—
Southern .....	785,508 1 7	694,759 7 11	90,748 13 8	—
South-Eastern .....	365,489 18 6	313,297 14 5	52,192 4 1	—
Port Broughton .....	19,914 13 4	20,941 3 1	—	1,026 9 9
Totals .....	10,955,297 9 0	7,207,337 16 3	Net 3,777,459 12 9	
ADD INTEREST ON BONDS PAID FROM GENERAL REVENUE .....	—	6,355,105 13 8		
BALANCE BRINGING LOSS .....	1,577,646 0 11			
Totals .....	12,562,943 9 11	12,562,943 9 11		

J. PICKERING, JUN., Comptroller of Accounts.

Adelaide, September 4th, 1891.

Appendix 19.

RETURN of the NUMBER and NATURE of the ACCIDENTS to LIFE and LIMB which OCCURRED during the YEAR ended JUNE 30th, 1891 (exclusive of Palmerston Line).

Date of Accident.	Line.	Passengers.				Servants of the Department.				Trespassers and others, not being Passengers.		Total Killed.	Total Injured.	Cause of Accident.
		From Causes beyond their own Control.		From their own Misconduct or Want of Caution.		From Causes beyond their own Control.		From their own Misconduct or Want of Caution.		Killed.	Injured.			
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.							
1890.	G. Northern													Injured while shunting.
July 15th .....	Midland	—	—	—	—	—	—	—	—	—	—	2	—	Run over by a train.
July 21st .....	Adelaide	—	—	—	—	—	—	—	—	—	—	—	1	Injured while unloading goods.
September 4th .....	Southern	—	—	—	—	—	—	—	—	—	—	—	—	Run over by a train.
September 8th .....	"	—	—	—	—	—	—	—	—	—	—	—	—	Injured while unloading goods.
September 12th .....	Midland	—	—	—	—	—	—	—	—	—	—	—	1	Injured while shunting.
September 27th .....	"	—	—	—	—	—	—	—	—	—	—	—	—	Run over by a train
October 8th .....	G. Northern	—	—	—	—	—	—	—	—	—	—	—	1	Injured while loading wool.
October 13th .....	Western	—	—	—	—	—	—	—	—	—	—	—	1	Run over by a truck.
October 14th .....	G. Northern	—	—	—	—	—	—	—	—	—	—	—	1	Slipped off brake van.
October 25th .....	Northern	—	—	—	—	—	—	—	—	—	—	—	1	Injured while shunting.
November 3rd .....	G. Northern	—	—	—	—	—	—	—	—	—	—	—	1	Injured while unloading timber.
November 11th .....	"	—	—	—	—	—	—	—	—	—	—	—	1	Fell out of a carriage.
November 13th .....	Midland	—	—	—	—	—	—	—	—	—	—	—	1	Run over by a train.
December 5th .....	"	—	—	—	—	—	—	—	—	—	—	—	—	Run over by a train.
December 12th .....	Port	—	—	—	—	—	—	—	—	—	—	—	1	Squeezed between trucks.
1891.	Northern	—	—	—	—	—	—	—	—	—	—	—	—	Fell from train.
January 14th .....	Port	—	—	—	—	—	—	—	—	—	—	—	1	Injured while shunting.
January 27th .....	Northern	—	—	—	—	—	—	—	—	—	—	—	1	Attempting to join train while in motion.
February 5th .....	G. Northern	—	—	—	—	—	—	—	—	—	—	—	1	Injured while shunting.
February 20th .....	Midland	—	—	—	—	—	—	—	—	—	—	—	—	Run over by a train.
March 11th .....	"	—	—	—	—	—	—	—	—	—	—	—	1	Fell from train.
April 1st .....	Western	—	—	—	—	—	—	—	—	—	—	—	—	Injured while shunting.
April 27th .....	Northern	—	—	—	—	—	—	—	—	—	—	—	1	Struck by engine.
May 1st .....	Midland	—	—	—	—	—	—	—	—	—	—	—	—	Run over by a truck.
May 5th .....	Adelaide	—	—	—	—	—	—	—	—	—	—	—	—	Alighting from train while in motion.
May 9th .....	Port	—	—	—	—	—	—	—	—	—	—	—	1	Struck by engine.
May 24th .....	Southern	—	—	—	—	—	—	—	—	—	—	—	—	Run over by a train.
June 6th .....	Midland	—	—	—	—	—	—	—	—	—	—	—	1	Injured while shunting.
June 28th .....	Northern	—	—	—	—	—	—	—	—	—	—	—	—	Run over by a train.
June 30th .....	Port	—	—	—	—	—	—	—	—	—	—	—	1	Run over by a train.
	Totals....	—	1	1	3	1	14	—	1	7	4	9	23	

Adelaide, September 16th, 1891.

ALAN G. PENDLETON, General Traffic Manager.

Appendix 20.

STATEMENT of the NUMBERS of PERSONS PERMANENTLY EMPLOYED on JUNE 30th, 1891 (exclusive of Palmerston Line.)

	Generally—For all Branches.		Traffic Branch.	Locomotive and Carriage Branch.	Maintenance Branch.	Total.
	Commissioners.	Comptrollers.				
Commissioners .....	3	—	—	—	—	3
General Traffic Manager .....	—	—	1	—	—	1
Locomotive Engineer .....	—	—	—	1	—	1
Comptroller of Accounts .....	—	1	—	—	—	1
Traffic Auditor .....	—	1	—	—	—	1
Paymaster and Expenditure Clerk .....	—	1	—	—	—	1
Receiver of Revenue .....	—	1	—	—	—	1
Assistant Traffic Auditor .....	—	1	—	—	—	1
Collector of Accounts .....	—	1	—	—	—	1
Bookkeeper .....	—	1	—	—	—	1
Travelling Inspectors of Accounts .....	—	2	—	—	—	2
Chief Pay Clerk .....	—	1	—	—	—	1
Locomotive Accountant .....	—	—	—	1	—	1
Chief Clerks .....	1	—	1	1	—	3
Traffic Superintendents .....	—	—	7	—	—	7
Works Manager .....	—	—	—	1	—	1
Outdoor Running Superintendent .....	—	—	—	1	—	1
District Locomotive Foremen .....	—	—	—	7	—	7
Resident Engineers .....	—	—	—	—	7	7
Resident Engineers' Assistants .....	—	—	—	—	6	6
Electrician .....	—	—	—	—	1	1
Apprentices .....	—	—	—	77	—	77
Carriage-washers .....	—	—	—	15	—	15
Chargemen .....	—	—	—	14	—	14
Check Porters .....	—	—	11	—	—	11
Cleaners .....	—	—	—	223	—	223
Clerks .....	7	50	109	44	24	234
Coalmen .....	—	—	—	34	—	34
Crossing-keepers .....	—	—	33	—	—	33
Draughtsmen .....	—	—	—	10	—	10
Electrical Fitters .....	—	—	—	—	5	5
Engine and Horse Drivers .....	—	—	26	154	—	180
Firemen .....	—	—	—	157	—	157
Foremen .....	—	—	24	13	—	37
Greasers .....	—	—	—	8	—	8
Guards .....	—	—	92	—	—	92
Inspectors .....	—	—	4	4	27	35
Lampmen .....	—	—	6	—	—	6
Mechanics .....	—	—	2	459	70	531
Overseers .....	—	—	2	—	—	2
Packers and Laborers .....	—	—	10	227	622	859
Platelayers and Gangers .....	—	—	—	—	269	269
Porters .....	—	—	414	—	—	414
Pumpers .....	—	—	—	26	—	26
Sheet Repairers .....	—	—	7	—	—	7
Shunters .....	—	—	10	17	—	27
Signalmen .....	—	—	53	—	—	53
Sleeping-car Conductors .....	—	—	5	—	—	5
Stationmasters .....	—	—	114	—	—	114
Storemen .....	—	—	—	4	—	4
Telegraph Messengers .....	—	—	7	—	—	7
Telegraph Operators .....	—	—	26	—	—	26
Ticket Collectors .....	—	—	2	—	—	2
Ticket Printers .....	—	—	3	—	—	3
Wagon Examiners .....	—	—	—	36	—	36
Watchmen .....	—	—	5	3	—	8
Weighbridge Attendants .....	—	—	4	—	—	4
Totals .....	11	60	978	1,542	1,031	3,622

Adelaide Station, September 9th, 1891.

J. PICKERING, Jun., Comptroller of Accounts.

Appendix 21.

MILEAGE OPEN for TRAFFIC to JUNE 30TH, 1891.—PALMERSTON LINE.

From.	To.	Date of Opening.	* Main Line Mileage.
Palmerston	Pine Creek	October 1st, 1889	Miles Chs. 145 78

\* Main through line is calculated from centre to centre of stations.

Adelaide, September 18th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 22.

PUBLIC DEBT for RAILWAYS.—PALMERSTON LINE.

Act No.	Undertaking.	Authorised to be Raised.	Bonds and Stock Sold— Amount.	Redeemable to June 30th, 1891.	In circulation on June 30th, 1891.	Interest.	
						Rate per Cent.	Paid and Accrued to June 30th, 1891.
297 of 1884	Railway from Palmerston to Pine Creek .....	£ 959,300	£ 1,016,300	—	£ 1,016,300	4	£ 294,727 0 0
449 of 1888	Port Darwin Jetty .....	57,000					
	Railway from Palmerston to Pine Creek, To complete ..	136,500	136,500	—	136,500	3½	11,943 15 0
	Totals .....	1,152,800	1,152,800	—	1,152,800	—	306,670 15 0

Adelaide, September 18th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 23.

LOANS PROVISION and EXPENDITURE to JUNE 30TH, 1891.—PALMERSTON LINE.

Provision.			Total Expenditure to June 30th, 1891.						Unexpended Balances Retained.							
By Act.		Bonds Issued.	Discounts, including Floating Charges.	Interest paid out of Loan Provision.	Construction.											
No.	Year.				£	s.	d.	£	s.	d.	£	s.	d.			
297	1884 .....	1,016,300	0	0	2,826	8	7	136,597	1	4	874,783	4	10	2,093	5	3
449	1888 .....	136,500	0	0	2,469	4	6	—			128,854	5	2	5,176	10	4
					5,295	13	1	136,597	1	4	1,003,637	10	0	7,269	15	7
Totals .....		1,152,800	0	0	£1,152,800 0s. 0d.											

Adelaide, September 18th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

### Appendix 24.

#### RECEIPTS and EXPENDITURE on CAPITAL ACCOUNT, PALMERSTON LINE, to JUNE 30TH, 1891.

Cr.

Dr.	£	s.	d.	£	s.	d.
To Expenditure (see No. 26)—				By Receipts—		
Way, Works, and Buildings .....	963,060	4	10	Amount of Bonds issued .....	1,162,800	0 0
Rolling-stock .....	29,217	8	6	Amount contributed from General Revenue .....	10	0 0
Machinery and Plant .....	11,369	16	8			
Interest—Construction .....	136,597	1	4			
Discounts and Floating Charges .....	5,295	13	1			
Balance of Loans unexpended .....	1,145,540	4	5			
	7,269	15	7			
	£1,162,810	0	0	Total Capital .....	£1,162,810	0 0
Adelaide, September 18th, 1891.				J. PICKERING, Jun., Comptroller of Accounts.		

### Appendix 25.

#### BALANCE-SHEET, PALMERSTON LINE, JUNE 30TH, 1891.

Cr.

Dr.	£	s.	d.	£	s.	d.
To Capital (see No. 24) .....	1,162,810	0	0	By Capital expenditure (see No. 24) .....	1,145,540	4 5
Public stores .....	265	3	11	H.M. Treasury—Loans (unexpended) .....	7,269	15 7
Sundry accounts in suspense .....	607	10	1	Sundry debtors .....	2,163	13 5
H.M. Treasury—General revenue .....	172,274	19	9	Sundry expenditure accounts in suspense .....	376	11 11
	£1,325,957	13	9	Profit and loss (see No. 37) .....	170,617	8 6
Adelaide, September 18th, 1891.				£1,325,957	13	9
				J. PICKERING, Jun., Comptroller of Accounts.		

SOUTH AUSTRALIAN RAILWAYS.

### Appendix 26.

#### STATEMENT of the COST OF CONSTRUCTION, the INTEREST, and ROLLING-STOCK, PALMERSTON LINE, on JUNE 30TH, 1891.

Line.	Gauge.	Miles of Line Open on June 30th, 1891.	For	Cost of Construction.					Interest Paid and Accrued on Bonded Debt.	Rolling-stock.		
				Way, Works, and Buildings—Total Expenditure.	Rolling-stock—Total Expenditure.	Machinery and Plant—Total Expenditure.	Net Amount of Interest Charged against Loan Funds.	Grand Total.		Locomotives.	Coaching.	Goods and Luggage.
				£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	No.	No.	No.
Palmerston and Pine Creek, including jetty at Palmerston	3 6	145 78	Construction	963,060 4 10	29,217 8 6	11,369 16 8	136,597 1 4	1,140,234 11 4	306,670 16 0	—	7	—
On the above .....	—	—	Additional requirements	—	—	10 0 0	—	—	—	6	—	134
Discounts and floating charges (amount short raised), See No. 24 .....	—	—		—	—	—	—	—	—	—	—	—
Totals .....	—	145 78		963,060 4 10	29,217 8 6	11,369 16 8	136,597 1 4	1,145,530 4 5	306,670 16 0	6	7	134
Adelaide, September 18th, 1891.												

APPENDIX

## Appendix 27.

REVENUE ACCOUNT, PALMERSTON LINE, for YEAR ended JUNE 30th, 1891, as COMPARED with NINE MONTHS ended JUNE 30th, 1890.

Expenditure.	Nine Months ended June 30th, 1890.	Twelve Months ended June 30th, 1891.	Revenue.	Nine Months ended June 30th, 1890.	Twelve Months ended June 30th, 1891.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
General charges .....	900 13 1	821 7 8	Coaching—		
Traffic expenses .....	2,153 10 3	2,289 6 3	Passengers .....	2,661 4 0	2,584 15 6
Locomotive power .....	2,022 0 1	1,916 17 5	Parcels and cloakroom charges .....	193 3 5	261 11 9
Carriages and wagons—Repairs and renewals .....	133 7 3	232 12 3	Mails .....	525 0 0	700 0 0
Maintenance branch .....	9,671 8 9	8,650 17 8	Other coaching traffic receipts .....	960 15 8	1,146 14 9
			Miscellaneous .....	245 17 10	275 5 5
Totals working expenditure .....	14,880 19 5	13,910 1 3	Total coaching .....	4,576 0 11	4,968 7 5
Balance, being net revenue ..	—	1,400 0 3	Merchandise—		
			Goods .....	7,461 3 10	8,816 8 4
			Livestock .....	38 1 10	218 19 3
			Miscellaneous .....	861 17 10	1,306 6 6
			Total merchandise .....	8,361 3 6	10,341 14 1
			Balance, being excess of working expenses over Revenue .....	1,943 15 0	—
Totals .....	14,880 19 5	15,310 1 6	Totals .....	14,880 19 5	15,310 1 6

Adelaide, September 18th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

## Appendix 28.

DETAILED STATEMENT of MILEAGE RUN OVER the PALMERSTON LINE during the YEAR ended JUNE 30th, 1891.

Description.	Miles.
Train mileage—	
Passenger—Ordinary .....	15,135
Special .....	653
Goods—Ordinary .....	17,135
Special .....	547
Total .....	31,470
Other engine mileage—	
Ballasting .....	2,248
Shunting .....	10,391
Total .....	12,639
Total Engine Mileage .....	44,109

Adelaide, August 17th, 1891.

J. PICKERING JUN., Comptroller of Accounts.

## Appendix 29.

STATEMENT of the COACHING and MERCHANDISE TRAFFIC, PALMERSTON LINE, during 1890-91, as COMPARED with 1889-90.

	Nine Months ended June 30th, 1890.	Twelve Months ended June 30th, 1891.
Average miles open for traffic .....	109m. 46ch.	145m. 78ch.
Coaching traffic—		
Passengers by ordinary tickets, 1st class .....	566	517
"                  "                  2nd class .....	4,001	3,998
Total .....	4,567	4,515
" Season tickets .....	nil	nil
Merchandise traffic—		
Livestock—Number of horses .....	4	28
"                  "                  cattle and calves .....	3	39
"                  "                  sheep and goats .....	29	1,101
"                  "                  pigs .....	74	20
Minerals—Tons .....	269	161
Bullion .....	—	31
Wool—Bales .....	—	6
All other goods—Tons .....	1,845	2,228

Adelaide, September 16th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

No. 47.

APPENDIX

## Appendix 30.

ANALYSIS of REVENUE on the PALMERSTON LINE for YEAR ended JUNE 30th, 1891.

COACHING TRAFFIC—				£	s.	d.
Passengers by ordinary tickets, 1st class	.....			703	15	8
“ “ “ 2nd class	.....			1,880	19	10
“ season “ 1st class	.....			—		
“ “ “ 2nd class	.....			—		
Total passengers	.....			2,584	15	6
Excess fares	.....			1,026	7	4
Police subsidy	.....			36	5	0
Dogs	.....			5	18	8
Mails	.....			700	0	0
Parcels and cloakroom charges	.....			261	11	9
Special trains	.....			78	3	9
Total coaching traffic	.....			£4,693	2	0
MERCHANDISE TRAFFIC—						
Goods	.....			8,816	8	4
Livestock	.....			218	19	3
Total merchandise traffic	.....			£9,035	7	7
MISCELLANEOUS—						
Rents	.....			856	4	10
Wharfage	.....			725	7	1
Total miscellaneous	.....			£1,581	11	11
Grand total	.....			£15,310	1	6

Adelaide, September 17th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

## Appendix 31.

COMPARATIVE RETURN, showing MILEAGE of PASSENGERS, TONS and MILEAGE of GOODS CARRIED, REVENUE and RECEIPTS per TRAIN MILE and per AVERAGE MILE OPEN, PALMERSTON LINE, during YEAR ended JUNE 30th, 1891, as COMPARED with NINE MONTHS to JUNE 30th, 1890.

COACHING TRAFFIC—		1890.	1891.
Passengers	.....number	4,567	4,515
Total number of miles travelled	.....	233,523	229,647
Average mileage per passenger	.....	51.13	50.86
Gross amount received from passengers for tickets	.....£	2,651	2,585
Average receipts per passenger per mile	.....d.	2.72	2.70
Gross amount received from coaching traffic and its proportion of miscellaneous rents	.....£	4,576	4,968
Average receipts per train mile	.....d.	75.63	75.53
“ “ average mile open	.....£	42	34
MERCHANDISE TRAFFIC—			
Total weight of freight-paying goods	.....tons	2,087	2,386
“ livestock	.....tons	6	40
“ goods, free	.....tons	27	35
Mileage of tons of goods (freight-paying) and livestock	.....	241,554	279,832
Average mileage per ton (freight-paying)	.....	115.47	115.35
Gross amount received from merchandise traffic and its proportion of miscellaneous rents	.....£	8,361	10,342
Average receipts per ton per mile (freight-paying)	.....d.	8.31	8.87
“ “ train mile	.....d.	144.10	158.27
“ “ average mile open	.....£	76	71
ALL TRAFFIC—			
Gross amount received	.....£	12,937	15,310
Receipts per train mile	.....d.	109.15	116.76
“ average mile open	.....£	118	105

Adelaide, September 21st, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 32.

STATEMENT of LIVESTOCK and PRINCIPAL ITEMS of MERCHANDISE FORWARDED, and TOTAL TONNAGE RECEIVED by EACH STATION on the PALMERSTON LINE, for YEAR ENDED JUNE 30th, 1891.

Stations.	Forwarded.									Received.
	Livestock.			Flour.	Minerals.	Bullion.	Wool.	O.S. Goods Free.	All Other Goods.	Total.
	No. of Cattle.	No. of Sheep and Goats.	No. of Pigs.	Tons.	Tons.	Tons.	Bales.	Tons.	Tons.	Tons.
Palmerston .....	1	1,076	—	139	—	—	—	28	1,787	1,954
McMinn's Lagoon .....	—	—	—	—	—	—	—	—	16	16
Southport-road .....	—	—	—	—	—	—	—	—	8	8
Rum Jungle .....	—	—	—	—	—	—	—	—	—	—
Stapleton .....	—	—	—	—	—	—	—	—	1	1
Adelaide River .....	—	18	—	—	—	—	—	6	14	20
Goodilla .....	—	—	—	—	—	—	—	—	—	—
Howley River .....	—	2	—	—	20	—	—	—	6	26
Fountain Head .....	38	—	1	—	—	—	—	—	4	4
Grove Hill .....	—	—	8	—	—	—	—	—	55	55
Burrundie .....	—	1	5	—	11	—	—	—	76	87
Boomleera .....	—	—	6	—	114	—	—	—	5	119
Union Reefs .....	—	1	—	—	—	31	—	—	39	70
Pine Creek .....	—	3	—	—	16	—	6	—	44	61
	39	1,101	20	139	161	31	6	34	2,055	2,421

Adelaide, September 16th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 33.

SUMMARY of WORKING EXPENDITURE, REVENUE, &c., PALMERSTON LINE, for the YEAR ENDED JUNE 30th, 1891.

Items.	Amount.	Per Cent. to Revenue.	Cost per Train Mile.	Cost per Average Mile Open.
	£ s. d.		d.	£
Miles open .....	145m. 78chs.	—	—	—
Average miles open .....	145m. 78chs.	—	—	—
Train mileage .....	31,470 miles	—	—	—
Working expenses—				
Generally .....	821 7 8	5.36	6.26	6
Traffic expenses .....	2,289 6 3	14.95	17.46	16
Locomotive power .....	1,915 17 5	12.52	14.61	13
Carriages and wagons—Repairs and renewals .....	232 12 3	1.52	1.77	1
Maintenance branch .....	8,650 17 8	55.61	65.98	59
Total working expenses .....	13,910 1 3	90.86	106.08	95
Total revenue .....	15,310 1 6			
Excess of revenue over working expenses .....	1,400 0 3			
Cost of construction on miles open for traffic .....	1,145,540 4 5			
Per cent. of net revenue on cost of construction .....	0.12			

Adelaide, September 16th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.



## Appendix 34.

ANALYSIS of WORKING EXPENSES, PALMERSTON LINE, for the YEAR ended JUNE 30th, 1891.

Account.	Amount.
<b>GENERAL CHARGES—</b>	<b>£ s. d.</b>
Commissioners' office .....	49 9 5
Comptroller's office .....	771 18 3
<b>Total</b> .....	<b>821 7 8</b>
<b>TRAFFIC EXPENSES—</b>	
Coaching—Wages .....	115 16 6
Clothing .....	39 9 0
Fuel and stores .....	21 3 9
Repairs .....	2 9 10
Printing and stationery .....	32 16 8
Sundries .....	42 0 4
Goods and livestock—Wages .....	134 5 0
Terminal .....	634 3 10
Clothing .....	2 10 6
Sheets .....	4 4 9
Stores .....	7 19 9
Printing and stationery .....	30 8 3
Sundries .....	39 13 6
Compensation .....	21 11 2
Cranes .....	9 14 11
General—General Traffic Manager's office .....	99 16 8
Salaries .....	932 8 7
Holidays .....	14 13 5
Sick pay .....	40 6 2
Greasing and oiling .....	30 11 6
Sundries .....	33 2 2
<b>Total</b> .....	<b>2,289 6 3</b>
<b>LOCOMOTIVE POWER—</b>	
General—Superintendence and office expenses .....	120 1 1
Running—Wages .....	848 17 9
Oil, tallow, &c. ....	84 14 2
Fuel .....	602 11 4
Water .....	0 2 5
Holidays .....	19 10 6
Sick pay .....	1 4 4
Repairs—Wages .....	141 0 8
Material .....	60 8 0
Shop charges .....	37 7 2
<b>Total</b> .....	<b>1,915 17 5</b>
<b>CARRIAGES AND WAGONS—</b>	
Coaching Stock—Repairs—Superintendence and office expenses .....	1 8 4
Wages .....	15 5 6
Material .....	6 0 9
Shop charges .....	2 16 4
Goods and Livestock—Repairs—Superintendence and office expenses .....	11 15 11
Wages .....	74 13 9
Material .....	28 6 0
Accidents .....	68 14 7
Shop charges .....	23 11 1
<b>Total</b> .....	<b>232 12 3</b>
<b>MAINTENANCE BRANCH—</b>	
General—Superintendence and office expenses .....	1,539 4 6
Holidays .....	57 5 1
Sick pay .....	0 18 0
Way—Ballasting .....	1,202 14 11
Sleepers .....	47 8 7
Rails, &c. ....	7 15 7
Platelaying .....	3,027 6 7
Works—Slips, flood repairs, and accidents .....	665 12 2
Clearing and grass burning .....	170 8 3
Fencing .....	2 18 0
Earthworks .....	1,485 2 10
Bridges, culverts, and level crossings .....	189 3 3
Jetties .....	147 3 1
Buildings—Traffic stations .....	4 18 5
" goods sheds and cattle ramps .....	5 8 9
Loco. and carriage houses and offices .....	5 17 4
" " workshops and erections .....	0 9 9
Maintenance houses and offices .....	57 0 2
Rolling-stock—Trucks, trolleys, and velocipedes .....	8 11 6
Machinery, plant, tools, &c.—Cranes and weighbridges .....	0 4 0
Water—Reservoirs, &c. ....	25 6 11
<b>Total</b> .....	<b>8,650 17 8</b>
<b>Grand total</b> .....	<b>13,910 1 3</b>

Adelaide, September 18th, 1891.

J. PICKERING, Jun., Comptroller of Accounts.

APPENDIX

## Appendix 35.

STATEMENT of EXPENDITURE for ALL RAILWAY PURPOSES during the YEAR ENDED  
JUNE 30th, 1891.—PALMERSTON LINE.

Details.	Working Expenditure out of General Revenue.	Expenditure out of General Revenue Debitable to Capital.	Loan Expenditure.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
As per Return No. 34.....	13,910 1 3	—	—	—
Additional requirements .....	—	10 0 0	—	—
Construction.....	—	—	4,006 8 5	—
Port Darwin jetty .....	—	—	*54,748 4 4	72,674 14 0
Totals .....	13,910 1 3	10 0 0	58,754 12 9	72,674 14 0

\* Most of this expense occurred prior to 1890-91, but the cost is, in this year, fully charged to Capital account.

Adelaide, September 22nd, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

## Appendix 36.

STATEMENT of the NUMBER of PERSONS PERMANENTLY EMPLOYED on the PALMERSTON LINE on  
JUNE 30th, 1891.

	Generally, for all Branches.	Traffic Branch.	Locomotive and Carriage Branch.	Maintenance Branch.	Total.
Locomotive and Traffic Superintendent .....	—	1	—	—	1
Accountant and Paymaster .....	1	—	—	—	1
Resident Engineer .....	—	—	—	1	1
Caretaker .....	—	1	—	—	1
Cleaners .....	—	—	2	—	2
Clerks .....	1	—	1	1	3
District Foremen.....	—	—	—	2	2
Engineman .....	—	—	1	—	1
Fireman .....	—	—	1	—	1
Gangers.....	—	—	—	17	17
Guard .....	—	1	—	—	1
Mechanics.....	—	—	5	—	5
Messenger .....	—	—	1	—	1
Packers and laborers .....	—	—	4	73	77
Porters .....	—	2	—	—	2
Pumper.....	—	—	1	—	1
Stationmasters .....	—	4	—	—	4
Wagon Examiner .....	—	—	1	—	1
Totals (Europeans, 40; Chinese and coolies, 82) .....	2	9	17	94	122

Adelaide, September 16th, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 37.  
COMPARATIVE STATEMENT for TWO YEARS ended JUNE 30th, 1891.—PALMERSTON LINE.

Year ended June 30th.	Miles Open at end of Year.	Average Miles Open during the Year.	Construction and Additional Requirements.		Rolling-stock.			Horses.	Tonnage of Goods and Livestock conveyed, including "On Service" Traffic.	Number of Passengers conveyed.	Gross Receipts.			Total Train Miles Run.	Gross Receipts per Train Mile.
			Capital Cost. Average Miles open, exclusive of Stores in hand, &c.	Average Cost per Mile Open.	Engines, Steam-cars, and Motors.	Coaching Stock.	Wagons.				From Coaching Traffic.	From Goods and Livestock Traffic.	Total.		
1890 (nine months) ....	146	109½	£ 1,081,480	7,402	7	6	134	—	2,120	4,667	£ 4,576	8,361	£ 12,937	28,446	d. 109-15
1891 .....	146	146	1,145,540	7,948	6	7	134	—	2,461	4,515	4,988	10,342	15,310	31,470	116-76

APPENDIX 37—continued.  
COMPARATIVE STATEMENT for TWO YEARS ended JUNE 30th, 1891.—PALMERSTON LINE.

Year ended June 30th.	General Charges.		Traffic Expenses.		Horse and Locomotive Power.		Carriages and Wagons.		Way and Works.		Total working Cost.			Net Earnings.	
	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Amount.	Per cent. to Gross Receipts.	Per Train Mile.	Amount.	Per cent. on Capital Cost.
1890 (nine months) .....	£ 901	6-96	2,164	18-65	£ 2,022	15-63	133	1-03	£ 9,671	74-75	14,881	115-02	d. 125-55	£ —	—
1891 .....	821	5-36	2,289	14-96	1,916	12-52	233	1-52	8,651	56-51	13,910	90-86	106-08	1,400	0-12

Adelaide, September 22nd, 1891.

J. PICKERING, JUN., Comptroller of Accounts.

Appendix 38.

STATEMENT of REVENUE, WORKING EXPENDITURE, and INTEREST on BONDS, from the Commencement to JUNE 30th, 1891.—PALMERSTON LINE.

Items.	Amount. £.	d.
Working Expenditure .....	28,701	0 8
Interest on Bonds, paid from General Revenue .....	170,073	13 8
Deduct the Revenue .....	198,864	14 4
Loss .....	28,247	6 11
Adelaide, September 22nd, 1891.	170,617	8 5

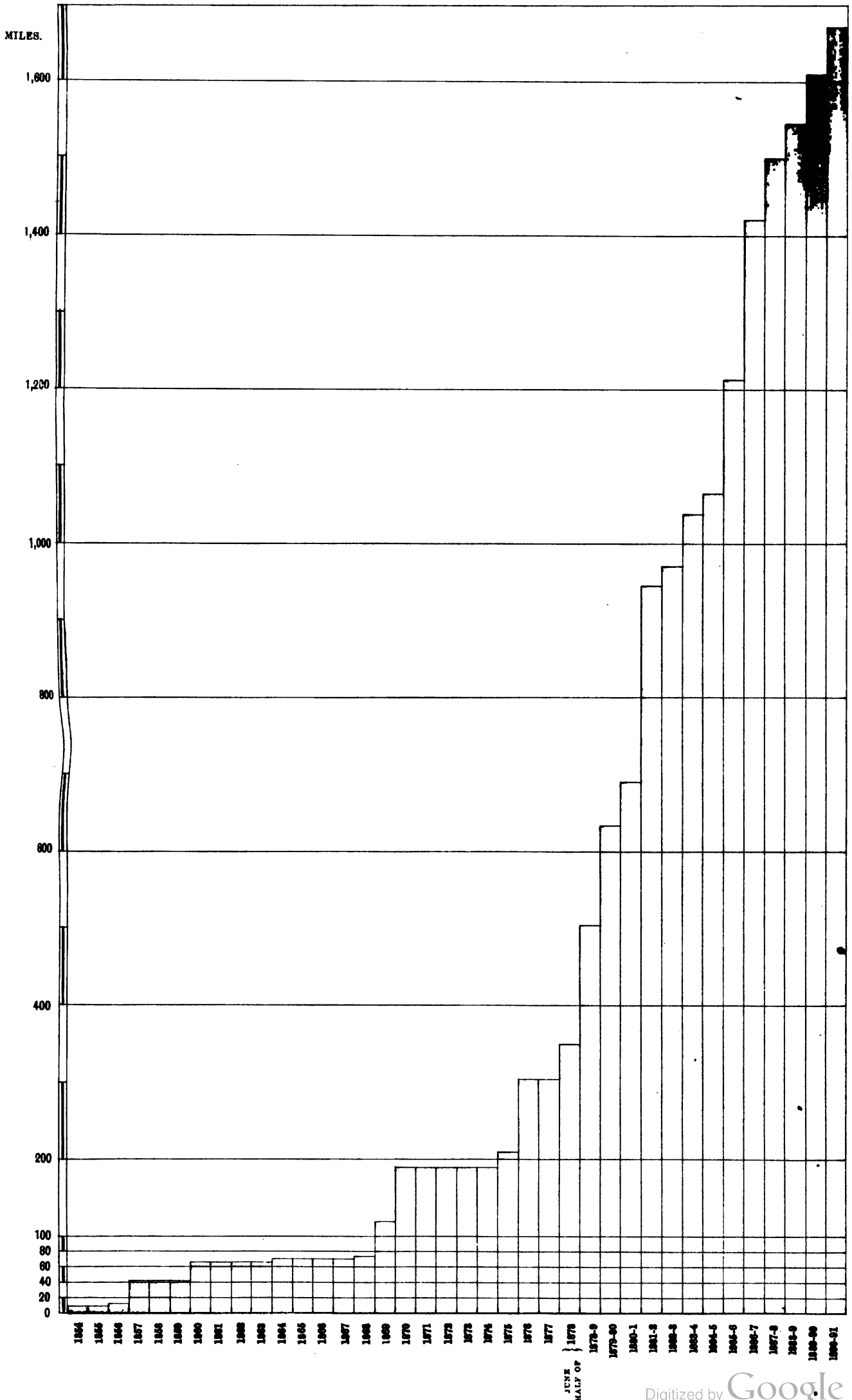
J. PICKERING, JUN., Comptroller of Accounts.

LOCOMOTIVE

# SOUTH AUSTRALIAN RAILWAYS.

## SOUTHERN PROVINCE.

### NUMBER OF MILES OPEN.

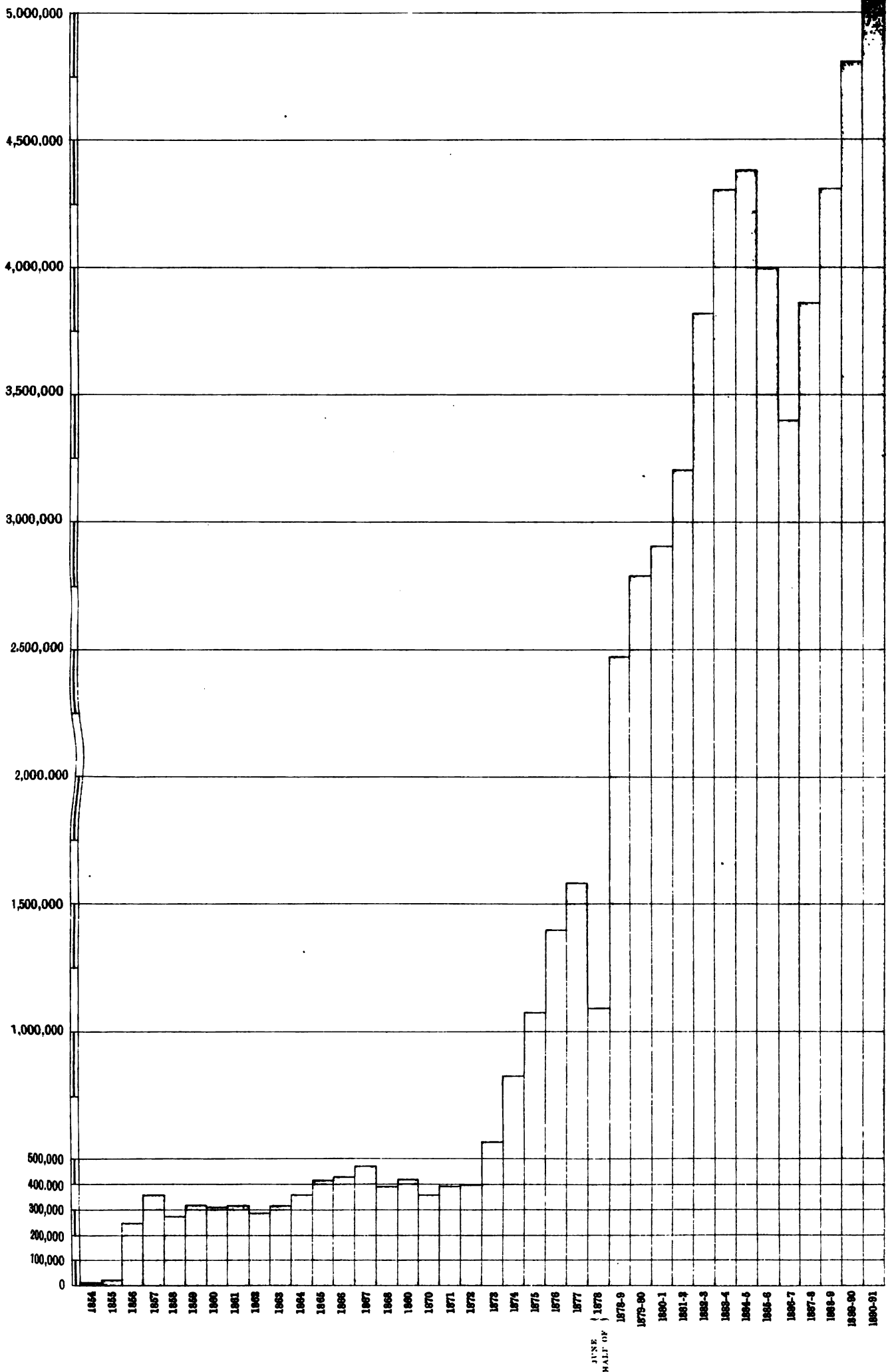




# SOUTH AUSTRALIAN RAILWAYS.

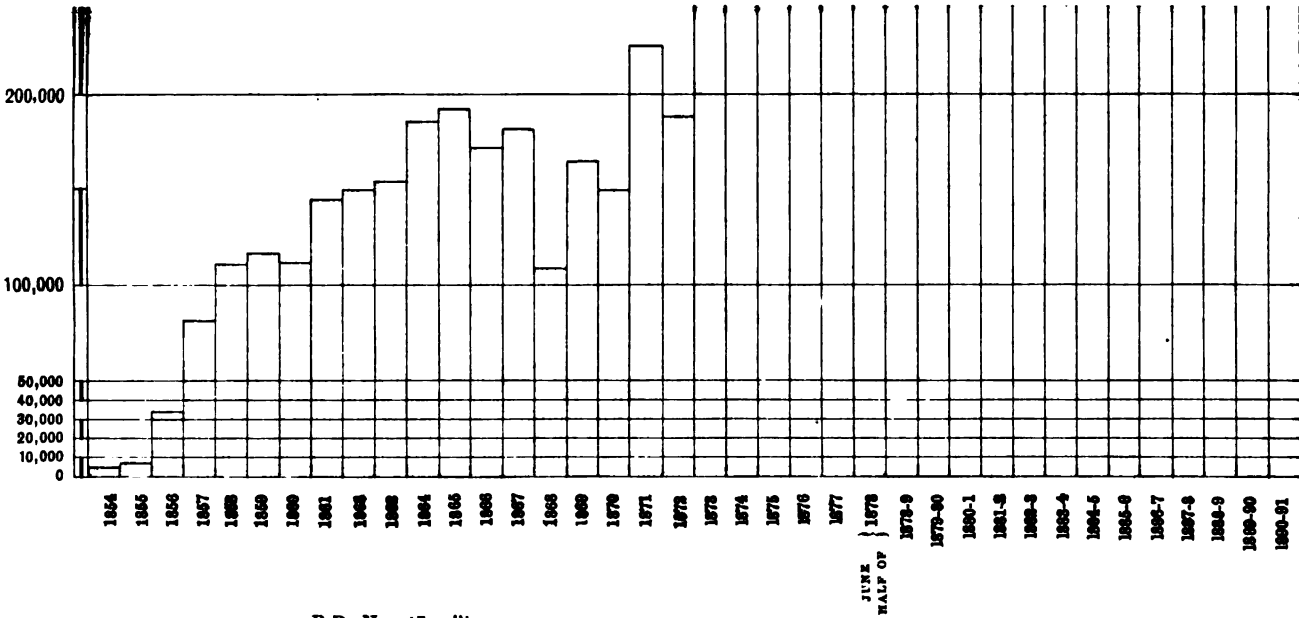
## SOUTHERN PROVINCE.

### NUMBER OF PASSENGERS.





SOUTH AUSTRALIAN RAILWAYS.



P.P. No. 47.—iii.

SURVEYOR GENERAL'S OFFICE, ADELAIDE. A. Vaughan, Photo-lithographer. (317. n)



1,200,000

1,150,000

1,100,000

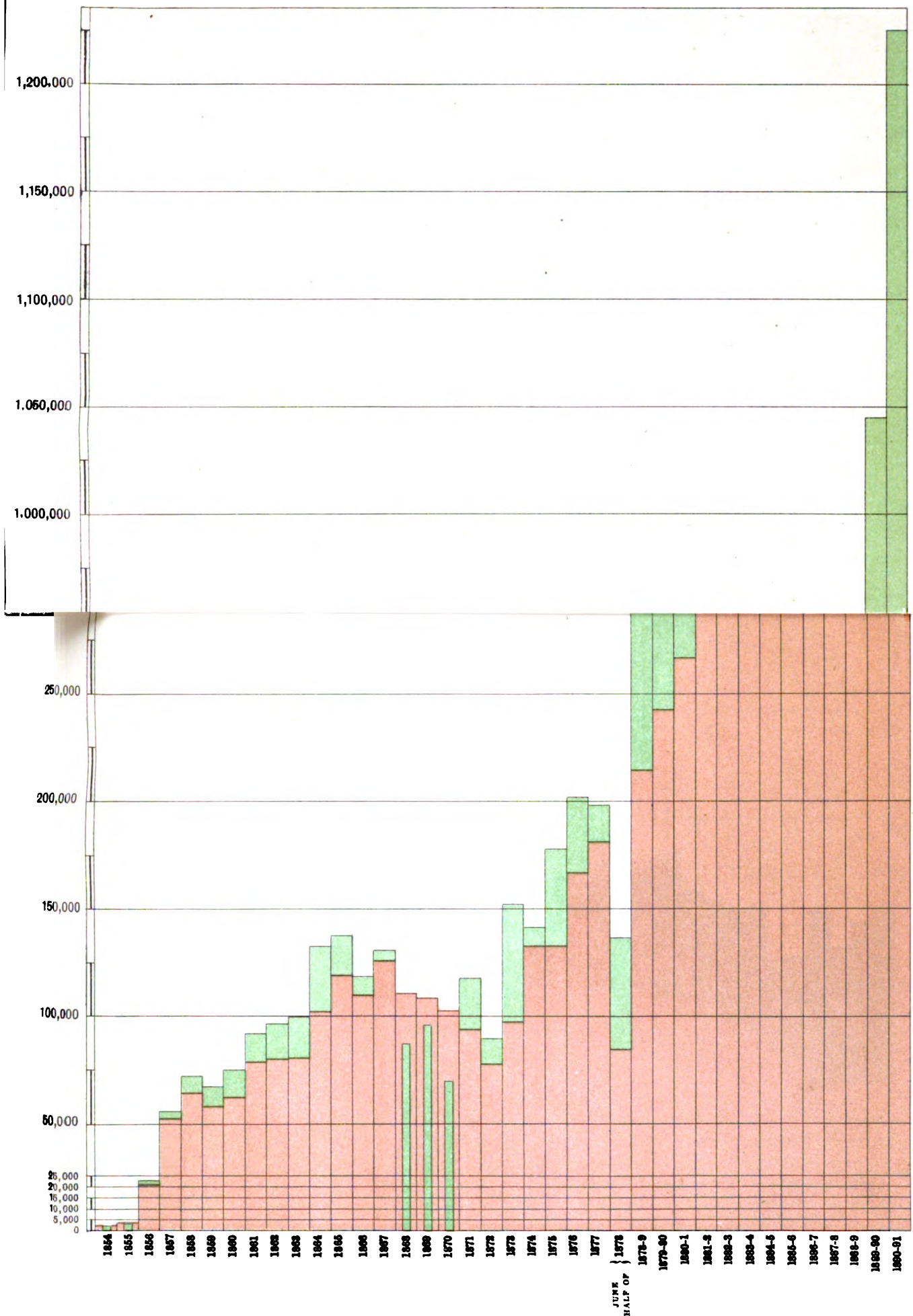
1,050,000

1,000,000

# SOUTH AUSTRALIAN RAILWAYS.

## SOUTHERN PROVINCE.

### GROSS AND NET EARNINGS AND WORKING EXPENSES.



*N.B.—In 1854, 1855, 1868, 1869, and 1870 the working expenditure exceeded the revenue.*

SURVEYOR GENERAL'S OFFICE, ADELAIDE. A. Vaughan. Photolithographer

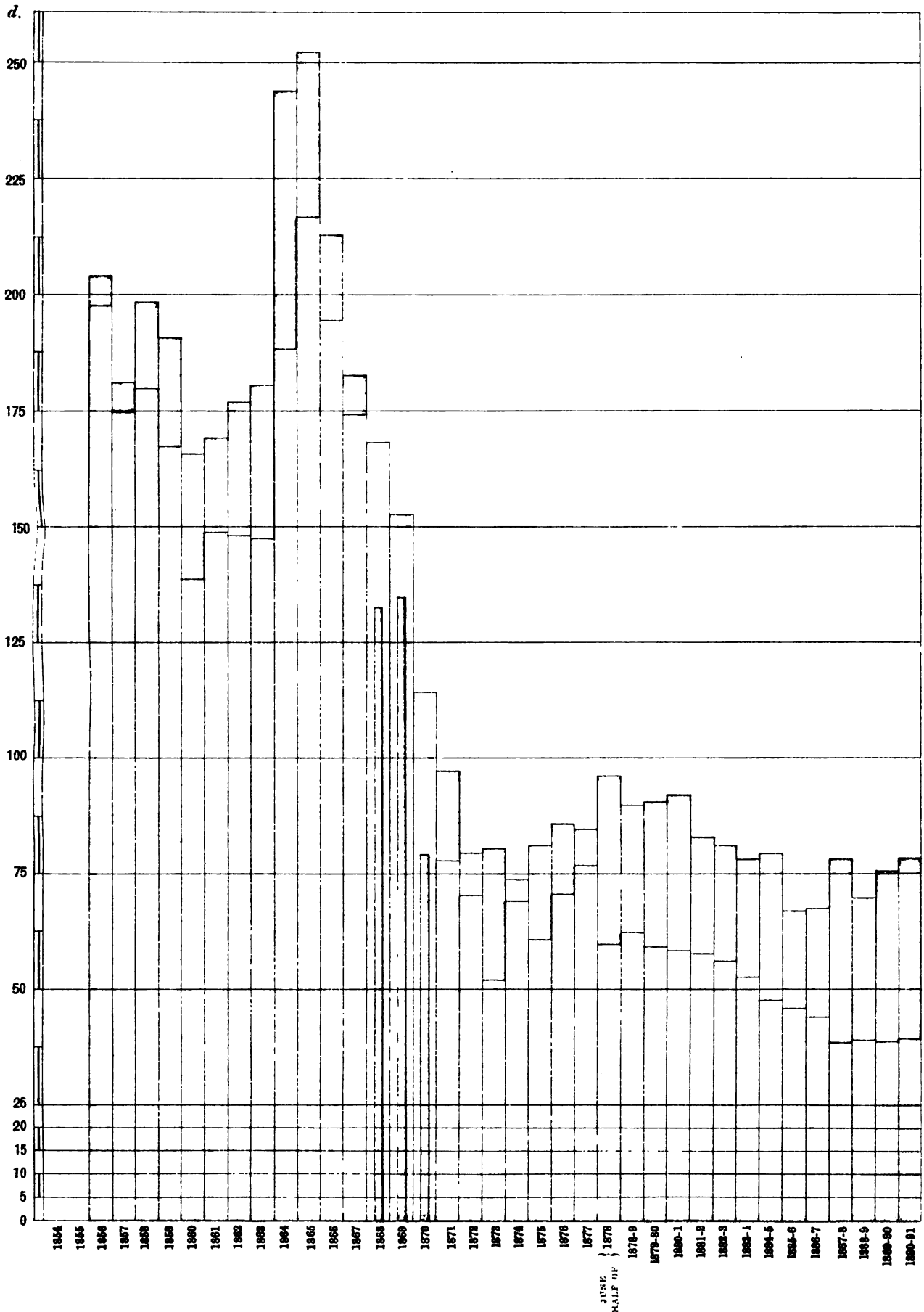
P.P. No. 47.—iv.



# SOUTH AUSTRALIAN RAILWAYS.

## SOUTHERN PROVINCE.

### GROSS AND NET EARNINGS AND WORKING EXPENSES PER TRAIN MILE.





## LOCOMOTIVE ENGINEER'S REPORT.

---

Locomotive Engineer's Office, Adelaide, September 26th, 1891.

Sirs—I have the honor to submit herewith the tables showing the details of the working expenditure and work performed during the year ended June 30th last.

The condition of the rolling-stock, pumping plant, and machinery throughout the department has been efficiently maintained.

On all systems there has been an increase in the locomotive train mileage executed, the total compared with that for last year being (exclusive of Palmerston) 3,690,778 against 3,224,088 miles.

Owing principally to the advanced prices paid for fuel during the late shipping strike, the extra holidays and sick leave to running men, with increased rates of wages and bonuses paid during the year to enginemmen, the cost of the department per train mile has increased on the South Australian lines from 16·12d. to 18·02d. On the Palmerston system the cost compares—16·60d. for 1891, against 15·38d. for 1890, the repairs to locomotives being exceptionally heavy.

During the year one of the broad-gauge locomotives, being unfit for traffic, has been condemned and withdrawn, and will be replaced, at the cost of working expenses, by one of the engines now under contract to Messrs. J. Martin & Co., Limited.

Owing to a collision with a stray bullock on the Port line, a second class carriage was smashed up, and this vehicle is being replaced by a new vehicle, at the expense of revenue.

The locomotive stock on the broad gauge has been increased by five engines (class R), built by Messrs. James Martin & Co., Limited, of Gawler. Eight class Y engines, built by the same firm, and one locomotive, transferred from the construction department, have been added to the 3ft. 6in. gauge stock.

Forty-nine 5ft. 3in. gauge and thirty-six 3ft. 6in. gauge engines have received thorough overhaul and general repairs during the year in the Adelaide workshops.

Preparatory to the opening of the Salisbury cemetery, one of the broad-gauge vans has been altered to a mortuary car of a similar design to those in use on the New South Wales railways.

We have constructed for the broad gauge coaching stock six composite bogie and four second class carriages. The latter were built out of our working expenditure to replace old third class vehicles previously condemned.

One composite bogie carriage, provided by the Victorian Government, has been added to the intercolonial joint rolling-stock, which now numbers thirty vehicles.

The goods and livestock vehicles have been increased by the construction in the workshops of seventeen bogie cattle vans and eight bogie sheep vans.

One sleeping, four composite, one lavatory, and three second-class carriages, with five luggage vans—all bogies—have been added to the narrow-gauge coaching stock.

Two 3ft. 6in. gauge carriages have been converted into ambulance vehicles, and, including Palmerston, we have now three of these vans available for the conveyance of patients travelling on our narrow-gauge lines and one on the broad gauge.

The additions to the narrow-gauge goods and livestock vehicles consist of seventy class C wagons (seventeen of which were built by Mr. J. Coumbe), forty-one wagons transferred from the Construction Department, six bogie cattle vans, and eighty-three hopper trucks (thirty-three of which were built by contract).

Six refrigerating chambers are now in use, an additional four having been built during the year, and two more are in course of construction.

Another important contract has recently been let to Messrs. James Martin & Co., Limited, for the building of forty broad-gauge and fifty-two narrow-gauge locomotives, at a total cost of £309,266. The same firm has also undertaken the construction of 350 broad-gauge goods wagons.

The new shops at Islington are approaching completion, the three wall engines and a portion of the machinery having already been placed in position. With the greater facilities for the repairs of rolling-stock, I anticipate a saving in this account. I hope to complete the removal of the machinery and the transfer of the staff by the end of this year.

I desire to point out that the introduction of the eight hours system in our running branch will very considerably swell the expenditure in future.

Yours, &c.,

The S. A. Railway Commissioners.

T. ROBERTS, Locomotive Engineer.

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LOCOMOTIVE ENGINEER'S DEPARTMENT.

Tables I., II., and III. show the additions which have been made to the South Australian rolling-stock on both gauges since June 30th, 1890.

TABLE I.—5' 3" GAUGE.

	June 30th, 1890.	Since Added.	Since Deducted.	June 30th, 1891.
Locomotives .....	102	5	1	106
Passenger motor—duplicate engine .....	1	—	—	1
Passenger motors—combined .....	2	—	—	2
Passenger vehicles .....	*155	11	1	*165
Goods and livestock vehicles .....	1,930	25	1	1,954
Total .....	2,190	41	3	2,228

\* Exclusive of intercolonial joint-stock vehicles.

TABLE II.—3' 6" GAUGE.

	June 30th, 1890.			Since Added.			Since Deducted.			June 30th, 1891.		
	Exclusive of Palmerston.	Palmerston Line.	Total.	Exclusive of Palmerston.	Palmerston Line.	Total.	Exclusive of Palmerston.	Palmerston Line.	Total.	Exclusive of Palmerston.	Palmerston Line.	Total.
Locomotives .....	97	7	104	10	—	10	—	1	1	107	6	113
Passenger vehicles .....	103	6	109	14	1	15	—	—	—	117	7	124
Goods and livestock vehicles .....	2,954	134	3,088	200	—	200	1	—	1	3,153	134	3,287
Total .....	3,154	147	3,301	224	1	225	1	1	2	3,377	147	3,524

TABLE III.—TRAMWAYS.

	June 30th, 1890.	Since Added.	Since Deducted.	June 30th, 1891.
Passenger vehicles .....	13	—	—	13
Goods vehicles .....	276	—	—	276
Total .....	289	—	—	289



LOCOMOTIVE ENGINEERS

In Tables IV., VI., and VII. the Stock Working Traffic on both gauges is classified in detail. In Table

TABLE IV.—RETURN of STOCK WORKING

Stock.	LOCOMOTIVES.															
	Tender Engines.										Tank Engines.					
	Classes.										Classes.					
	C English.	D English.	EZ English.	H English.	J English.	L English.	N American.	O American.	Q English.	R English.	A English.	B English.	E English.	F English.	G English.	I English.
On June 30th, 1890 .....	2	8	2	9	2	4	2	2	15	7	3	1	5	2	5	1
On June 30th, 1891 .....	2	8	2	9	2	4	2	2	15	12A	3	0B	5	2	5	1

Stock.	GOODS AND												
	Goods Brakevans.		Covered Wagons.					Open Wagons.					
	Ordinary.	Brake Wagons.	E Goods.	Dairy Produce.	Fish.	Weightbridge.	Accident.	F Coke, 48" Sides.	G Goods, 27" Sides.	H Goods, 17" Sides.	HP Goods, 22"-24" Sides.	J Goods & Coal, 18" Sides.	K Buggy End Loading.
On June 30th, 1890 .....	41	3	61	2	1	1	1	10	219	373	168	470	2
On June 30th, 1891 .....	41	3	61	2	0G	1	1	10	219	373	168	470	2

REMARKS.

- A. Five Class R engines, built by Messrs. Jas. Martin & Co., Limited, and issued to traffic.
- B. One Class B engine (No. 4), condemned and to be replaced by new engine at cost of working expenses.
- C. Six composite first and second class bogie carriages, constructed and issued to traffic.
- D. Four second class bogie carriages rebuilt in place of old third class carriages previously condemned.
- E. One second class carriage No. 91, broken up through collision on Port line.

TABLE V.—RETURN of JOINT ROLLING-STOCK.

Stock on—	
June 30th, 1890 .....	
June 30th, 1891 .....	

REMARKS.—A. One composite first and second class bogie carriage.

DEPARTMENT.

V. similar information is given concerning the Intercolonial Joint Rolling-stock.

TRAFFIC on 5' 3" GAUGE RAILWAYS.

COACHING STOCK.																															
						Total.	Passenger Motors.	Royal Carriage.	First-Class Carriages.		Composite First and Second Class Carriages.		Second-Class Carriages.		Ambulance Carriage.	Mortuary Car.	Luggage Vans.														
K English.		M English.		P English.	Goods Motors.				Crane Engines.	Long Saloon Rogie.	Ordinary	Bogie.	Fixed Wheel Base.	Bogie End Loading.			Ordinary.		Bogie with Post Office Compartment.	Ordinary.		Bogie.	Fixed Wheel Base.	Fixed Wheel Base with Post Office Compartment.	Fixed Wheel Base with 2nd-Class Compartment.	Post Office Mailvans.	Total.				
																	Bogie.	Fixed Wheel Base.		Bogie.	Fixed Wheel Base.							Bogie.	Fixed Wheel Base.	Bogie.	Fixed Wheel Base.
18	5	6	2	1	102	3	1	1	25	1	3	9	23	3	20	40	1	—	2	16	6	1	3	155							
18	5	6	2	1	106	3	1	1	25	1	3	15c	23	3	24D	39E	1	1F	2	16	6	1	3	165							

LIVESTOCK.

L Hopper Coal Trucks.	Flat Wagons.					P Bolster Trucks.	Engine & Carriage Bogie Truck.	Travelling Tanks	Gunpowder Vehicles.	Horse Boxes.	Cattle Vans.		Sheep Vans.				D Sheep Trucks.	Portable Sheep Ramps.	Ten-ton Travelling Crane.	Total.
	M Long (Ordinary).	M Long (Cleminson).	T Short (Ordinary).	Old Tram Stock Altered.							Q Ordinary.	R Bogie.	A Short.	B Medium.	C Long.	U Bogie.				
				O Small.	Connecting Truck.															
20	11	1	62	42	2	44	1	34	4	20	63	7	9	12	54	16	12	2	1	1,930
20	11	1	62	42	2	44	1	34	4	20	63	24H	9	12	54	24J		2	1	1,954

REMARKS—continued.

- r. One Fish van converted into a Mortuary car.
- o. One Fish van (No. 1588), converted into a Mortuary car.
- n. Seventeen bogie cattle vans (Class R), constructed and issued to traffic.
- j. Eight bogie sheep vans (Class U), constructed and issued to traffic.

VICTORIAN and SOUTH AUSTRALIAN RAILWAYS.

Coaching Stock.					
Boudoir Cars.	Composite First and Second Class Bogie Carriages.	Luggage Bogie Vans.	Bogie Mail Vans.		Total.
			Post Office.	Baggage.	
6	11	6	3	3	29
6	12A	6	3	3	30

provided by the Victorian Railway Department and issued to traffic.

LOCOMOTIVE ENGINEER'S  
TABLE VI.—RETURN of STOCK WORKING

System.	Stock.	LOCOMOTIVES.							COACHING STOCK.										
		Tender Engines.				Tank Engines.			First Class Bogie Carriages.	Composite First and Second Class Carriages.		Bogie. Fixed Wheel Base.	Ambulance Carriages, Fixed Wheel Base.	Bogie. Fixed Wheel Base.	Post Office Vans Fixed Wheel Base.	Total.			
		Classes.				Classes.				Bogie. Fixed Wheel Base.	Lavatory Bogies.								
		U English.	W English.	X English.	Y English.	K English.	V English.	Baldwin.									Total.		
																		Sleeping.	Lavatory.
Western .....	{ June 30, 1890	5	4	—	—	—	2	—	11	—	—	8	1	—	—	—	—	3	17
	{ June 30, 1891	5	4	—	—	—	1 <sub>A</sub>	—	10	—	—	8	1	—	—	—	—	3	17
Northern .....	{ June 30, 1890	3	12	7	51	1	2	—	76	2	—	27	—	15	—	3	1	8	76
	{ June 30, 1891	3	13 <sub>B</sub>	8 <sub>C</sub>	60 <sub>D</sub>	1	3 <sub>E</sub>	—	88	3 <sub>H</sub>	—	31 <sub>I</sub>	—	16 <sub>J</sub>	3 <sub>JA</sub>	2 <sub>K</sub>	2 <sub>L</sub>	8	84
South-Eastern ..	{ June 30, 1890	—	10	—	—	—	—	—	10	—	—	11	—	—	—	3	—	2	16
	{ June 30, 1891	—	9 <sub>F</sub>	—	—	—	—	—	9	—	—	11	—	—	—	3	—	2	16
Total, exclusive of Palmerston ....	{ June 30, 1890	8	26	7	51	1	4	—	97	2	—	46	1	15	—	9	1	12	162
	{ June 30, 1891	8	26	8	60	1	4	—	107	3	—	50	1	16	3	8	2	12	117
Palmerston .....	{ June 30, 1890	—	5	—	1	—	—	1	7	—	1	2	—	—	1	—	—	2	6
	{ June 30, 1891	—	5	—	0 <sub>G</sub>	—	—	1	6	—	1	2	—	—	1	—	1 <sub>N</sub>	2	7
Total 3' 6" gauge	{ June 30, 1890	8	31	7	52	1	4	1	104	2	1	48	1	15	1	9	1	14	199
	{ June 30, 1891	8	31	8	60	1	4	1	113	3	1	52	1	16	4	8	3	14	124

REMARKS.

- A. One tank engine, Class V (No. 11), transferred to Pirie Section, November, 1890.
- B. One tender engine, Class W (No. 29), transferred from South-Eastern System.
- C. One tender engine, Class X (No. 47), transferred from the Construction Department.
- D. One tender engine, Class Y (No. 106), transferred from Palmerston, and eight engines (Nos. 110 to 114, 116, 118, and 119) built by Messrs. Jas. Martin & Co., Ltd.
- E. One tank engine, Class V (No. 11), transferred from the Western System.
- F. One tender engine, Class W (No. 29), transferred to Northern System, Quorn Section, January, 1891.
- G. One tender engine, Class Y (No. 106), transferred to Northern System, Quorn Section.
- H. One sleeping carriage constructed.
- I. Four composite bogie carriages constructed.
- J. One composite lavatory bogie carriage constructed.
- JA. Three second-class bogie carriages constructed.
- K. One second-class carriage converted into an ambulance.
- L. One second-class carriage converted into an ambulance.
- M. Five bogie luggage vans constructed.

TABLE VII.—RETURN of WORKING

Kadina, Wallaroo, and Moonta Line .....	{ Stock on June 30th, 1890 .....	.....
	{ Stock on June 30th, 1891 .....	.....
Port Broughton and Barunga Line .....	{ Stock on June 30th, 1890 .....	.....
	{ Stock on June 30th, 1891 .....	.....
Gawler Street Line .....	{ Stock on June 30th, 1890 .....	.....
	{ Stock on June 30th, 1891 .....	.....
Total Tramways .....	{ Stock on June 30th, 1890 .....	.....
	{ Stock on June 30th, 1891 .....	.....

## DEPARTMENT.

## TRAFFIC on the 3' 6" GAUGE RAILWAYS.

## GOODS AND LIVESTOCK.

Goods Brake Vans.	Covered Wagons.				Open Wagons.				Flat Wagons.			Bolster Trucks.		Travelling Tanks.		Gunpowder Vehicles.	J Horseboxes.	Cattle Vans.		Sheep Vans.		Portable Sheep Ramps.	Total.
	Workmans' Vans.	A Goods.	Dairy Produce.	Fish.	B 23'-30".	C 18' Goods and Coal.	D 18' 6-wheel Cleminson.	OE Hopper OC Coke	F Small.	G with Screw Brake.	Long.	H Permanent.	Temporary.	Permanent.	Temporary.			K Ordinary.	R Bogie.	M Ordinary.	U Bogie.		
7	—	8	—	1	6	189	5	—	80	4	—	—	—	3	15	—	3	3	—	5	—	1	830
7	—	8	—	1	6	189	5	—	83Na	4	—	—	—	3	12Na	—	3	3	—	5	—	1	330
65	—	43	2	—	244	1,551	7	100	44	—	—	68	11	45	—	3	21	70	2	43	26	—	2,345
64o	—	44P	2	—	244	1,662Q	7	183R	43S	—	—	68	11	45	—	2T	21	70	8U	43	26	1V	2,544
5	—	15	1	—	—	209	—	—	2	—	2	4	—	7	—	—	4	15	—	14	—	1	279
5	—	15	1	—	—	209	—	—	2	—	2	4	—	7	—	—	4	15	—	14	—	1	279
77	—	66	3	1	250	1,949	12	100	126	4	2	72	11	55	15	3	28	88	2	62	26	2	2,954
76	—	67	3	1	250	2,060	12	183	128	4	2	72	11	55	12	2	28	88	8	62	26	3	3,153
—	1	—	—	—	—	117	—	—	5	—	—	4	—	4	—	1	—	2	—	—	—	—	134
1w	1	—	—	—	—	116x	—	—	5	—	—	4	—	4	—	1	—	2	—	—	—	—	134
77	1	66	3	1	250	2,066	12	100	131	4	2	76	11	59	15	4	28	90	2	62	26	2	3,088
77	1	67	3	1	250	2,176	12	183	133	4	2	76	11	59	12	3	28	90	8	62	26	3	3,287

## REMARKS—continued.

- n. One ambulance carriage (No. 10) converted from second-class carriage, withdrawn from Northern System last year and issued to traffic, December, 1890.  
na. Three temporary travelling tanks dismantled and converted into "F" flat wagons.  
o. One goods brake van (No. 915) transferred to Palmerston.  
p. One temporary gunpowder vehicle (No. 952) converted into covered goods van.  
q. Fifty-three Class C wagons, constructed in Adelaide locomotive works; seventeen built by Mr. John Coumbe, and forty-one wagons transferred from Construction Department.  
r. Fifty hopper trucks constructed in Adelaide locomotive works, and thirty-three built by Mr. John Coumbe.  
s. One flat truck altered to sheep ramp.  
t. One gunpowder vehicle converted into covered goods van.  
u. Six bogie cattle vans constructed.  
v. One flat truck converted into a portable sheep ramp.  
w. One goods brake van (No. 915) transferred from Northern System, and issued into traffic at Palmerston, September, 1890.  
x. One Class C goods wagon (No. 4,185) withdrawn from traffic, and fitted with a steam hoist as travelling crane for jetty.

## STOCK on TRAMWAYS.

Coaching.				Goods and Livestock.						
English Car.	American Cars.	Old Design Cars.	Total.	Luggage Wagons.	Open Box Wagons.		Flat Wagons.		Travelling Tanks.	Total.
					Box. 16" to 30"	Tip. 18"	Ordinary.	Screw Brakes.		
1	5	3	9	2	168	36	16	—	2	224
1	5	3	9	2	168	36	16	—	2	224
—	—	2	2	—	—	—	44	8	—	52
—	—	2	2	—	—	—	44	8	—	52
—	2	—	2	—	—	—	—	—	—	—
—	2	—	2	—	—	—	—	—	—	—
1	7	5	13	2	168	36	60	8	2	276
1	7	5	13	2	168	36	60	8	2	276

LOCOMOTIVE ENGINEER'S DEPARTMENT.

Table VIII. is a statement of the work done in the workshops for rolling-stock during year ending June 30th, 1891, as compared with that done in year ending June 30th, 1890; and in Table IX. this comparison is summarised:—•

TABLE VIII.—WORK DONE in ADELAIDE and ISLINGTON WORKS for ROLLING-STOCK.

Year ending—	Engine Stock.					New Vehicles Built.										New Vehicles mounted on Wheels.										
						Coaching Stock.			Goods and Livestock.							New Vehicles built by Contractors.										
	New Locomotives erected.	New Tenders erected.	Locomotives rebuilt.	Number of Times Loco-motives repaired.	Pumping Engine and Boiler attentions.	Total Locomotive and Engine attentions.	Carriages complete.	Passenger Brake-vans complete.	Total.	Goods Brakewans complete.	Open Wagons complete.	Hopper Trucks complete.	Booster Trucks complete.	Flat Trucks complete.	Sheepwans complete.	Cattle-vans complete.	Total.	Bozle Sheepwans complete.	Open Wagons complete.	Total.	Hoppe Trucks.	Open Goods Wagons.	Flat Trucks.	Bozler Trucks.	Total.	
June 30th, 1890 .....	14	14	3	4,787	74	4,892	7	4	11	8	89	—	4	5	4	7	4	121	3	31	34	—	136	32	8	176
June 30th, 1891 .....	—	—	1	5,029	63	5,093	*19	5	24	—	53	50	—	—	—	8	23	134	—	—	—	33	17	—	—	50

\* Including four replacements.

TABLE VIII.—continued.

Year ending—	Vehicles repaired and attended to.										Wheel Repairs.				
	Carriage fitted with Automatic Brake-pipes only.	Wagons fitted with Automatic Brake-pipes only.	Wagons fitted with Automatic Brake-pipes only.	Carriages altered in Design.	Number of Times Carriages repaired.	Goods and Live-stock Vehicles altered in Design.	Number of Times Goods and Live-stock Vehicles repaired.	Total Vehicle Attentions.	New Wheels applied to Old Stock.	New Tires applied to Old Stock.	Tires re-turned.	New Axes applied to Old Stock.	New Brakes applied to Old Stock.	Re-fitted Brakes applied to Old Stock.	Total Wheel Attentions.
June 30th, 1890 .....	—	—	—	3	298	46	1,702	2,049	14	78	276	7	672	1,624	2,671
June 30th, 1891 .....	1	3	3	3	302	3	1,397	1,709	74	148	336	37	625	891	2,111

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**LOCOMOTIVE ENGINEER'S DEPARTMENT.**

TABLE IX.—SUMMARY OF WORK DONE IN ADELAIDE AND ISLINGTON WORKS FOR ROLLING-STOCK.

	Year ending June 30th, 1890,	Year ending June 30th, 1891.
Locomotive and pumping engine attentions .....	4,892	5,093
New coaching vehicles complete .....	11	24
New goods and livestock vehicles .....	121	134
{ Complete .....		—
{ Completed in 1889, except mounting and mounted on wheels in 1890 .....	34	50
New vehicles built by contractors and mounted on wheels .....	176	1,709
Carrriage and wagon attentions .....	2,049	2,111
Wheel attentions .....	2,571	

**Table X. is a list of new vehicles issued into traffic during the year ending June 30th, 1891, their makers and destinations.**

No of Vehicles.	Description.	Name of Makers.	Number on Vehicles.	System to which Issued.	Railway to which Debited.		Month of Issue.
					Line.	Account.	
<i>Victorian and South Australian Joint Stock, 5' 3" Gauge.</i>							
1	First and second class composite bogie carriage ....	Victorian Locomotive and Carriage Department	028	Southern	Provided by Victorian Government	—	June, 1891
<i>5' 3" Gauge Lines (Railways).</i>							
	Class R tender engine .....	Jas. Martin & Co., Ltd.	103	Southern	Additional rolling-stock (Act 1890)	Personal	August, 1890
1	" .....	"	104	"	"	"	November, 1890
1	" .....	"	105	"	"	"	January, 1891
1	" .....	"	106	"	"	"	April, 1891
1	" .....	"	107	"	"	"	June, 1891
6	First and second class composite bogie carriages ....	Adelaide Locomotive Works	168 to 171	"	"	"	April, 1891
7	Bogie cattle vans, Class R .....	"	309 to 3015	"	Nairne and Victorian Border	"	July, 1890
4	" " " R .....	"	3016 to 3019	"	"	"	September, 1890
4	" " " R .....	"	3020 to 3023	"	"	"	October, 1890
2	" " " R .....	"	3024 to 3025	"	"	"	November, 1890
3	Bogie sheep vans, Class U .....	"	1693 to 1634, 1698	"	"	"	October, 1890
3	" " " U .....	"	1699 to 1701	"	"	"	March, 1891
2	" " " U .....	"	1702 to 1703	"	"	"	May, 1891

## LOCOMOTIVE ENGINEER'S DEPARTMENT.

Table X. is a list of new vehicles issued into traffic during the year ended June 30th, 1891, their makers and destinations—continued.

No. of Vehicles.	Description.	Name of Makers.	Number on Vehicles.	System to which Issued.	Railway to which Debited.		Month of Issue.
					Line.	Account.	
3' 6" Gauge Lines (Railways).							
		Jas. Martin & Co., Ltd.	Northern		Additional rolling-stock (Act 1890)	Personal	October, 1890
1	Class Y tender engines	"	110	"	"	"	November, 1890
1	"	"	111	"	"	"	December, 1890
2	"	"	112 to 113	"	"	"	December, 1890
1	"	"	114	"	"	"	February, 1891
1	"	"	116	"	"	"	March, 1891
2	"	"	118, 119	"	"	"	May, 1891
1	Sleeping bogie carriage	Adelaide Locomotive Works	111	"	Petersburg and New South Wales Border	"	December, 1890
1	First and second composite lavatory carriage	"	121	"	"	"	November, 1890
3	"	"	115 to 117	"	"	"	August, 1890
1	"	"	118	"	"	"	November, 1890
1	Second class bogie carriage	"	127	"	Strangways Springs and Peake	"	November, 1890
1	"	"	128	"	"	"	February, 1891
1	"	"	132	"	"	"	April, 1891
1	Bogie luggage van	"	106	"	Petersburg and New South Wales Border	"	May, 1891
1	"	"	106	"	"	"	July, 1890
1	"	"	107	"	"	"	December, 1890
1	"	"	108	"	"	"	April, 1891
1	"	"	123	"	Strangways Springs and Peake	"	June, 1891
12	Open coal wagons, Class C	"	4109 to 4120	"	"	"	"
26	Open goods wagons, Class C	"	4280 to 4297, 4304, 4305, 4310 to 4313, 4319, 4320	"	Peake and Angle Pole	"	September, 1890
10	"	"	4298 to 4300, 4306, 4307, 4314 to 4318	"	"	"	October, 1890
5	"	"	4301 to 4303, 4308	"	"	"	November, 1890
6	"	"	to 4309	"	"	"	November, 1890
11	"	J. Coumbe	4407 to 4417	"	Petersburg and New South Wales Border	"	January, 1891
6	"	"	4418 to 4423	"	"	"	May, 1891
1	Hopper truck, Class O.C.	"	4386	"	"	"	June, 1891
23	"	Adelaide Locomotive Works	4327 to 4346, 4349	"	Additional rolling-stock (Act 1890)	"	April, 1891
2	"	"	to 4351	"	"	"	"
26	"	J. Coumbe	4365 to 4366	"	"	"	May, 1891
6	"	"	4377 to 4386, 4387	"	Petersburg and New South Wales Border	"	"
25	"	"	4404 to 4406, 4424	"	"	"	June, 1891
2	"	"	to 4426	"	"	"	"
25	"	Adelaide Locomotive Works	4347, 4348, 4352 to 4364, 4367 to 4376	"	Additional rolling-stock (Act 1890)	"	"
2	Bogie cattle vans, Class B	"	3026, 3027	"	Hergott and Strangways Springs	"	February, 1891
2	"	"	3028, 3029	"	"	"	March, 1891
1	"	"	3030	"	"	"	April, 1891
1	"	"	3031	"	"	"	May, 1891

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LOCOMOTIVE ENGINEER'S DEPARTMENT.  
TABLE XI.—CONTRACTS LET during YEAR ending JUNE 30th, 1891.

System.	Date of Contract.	Work.	Contractors.	Amount.	Remarks.
Northern .....	1890.	Unloading and stacking coal .....	Jas. McConll	£ s. d.	per ton, Petersburg
"	July 2	"	"	0 0 4	" Cookburn
Narrow-gauge .....	1891.	Supply and delivery of 525 class V firebricks .....	A. E. Barker	11 10 0	" Quorn and Port Augusta
"	January 2	525 " W " .....	"	0 0 5½	per 1,000
"	"	3,000 " X " .....	L. T. Watts & Co.	6 5 0	"
"	"	3,000 " Y " .....	"	5 5 0	"
"	"	600 " cupola " .....	"	5 5 0	"
"	November 5	2,000 " V " .....	"	11 10 0	"
"	"	2,000 " W " .....	L. T. Watts & Co.	9 10 0	"
"	"	8,000 " X " .....	"	6 5 0	"
"	"	8,000 " Y " .....	"	5 5 0	"
"	July 11	3 pairs Craven Bros', coupled Wall engines .....	McLean Bros. & Riggs, Limited	1,091 5 0	"
"	"	6 overhead travelling cranes, with gearing and ropes complete .....	"	5,769 8 8	"
"	"	64 best crucible cast-steel tyres .....	"	171 0 0	"
"	December 30	3,000 wheel centres .....	F. Krupp, per F. H. Snow	6,523 1 3	"
"	July 11	44 wheels and tyres .....	"	251 1 10	"
"	"	100 steel axles, 5' 3" gauge .....	"	291 14 0	"
"	"	350 " 3' 6" " .....	"	764 0 10	"
"	December 30	1,000 " 3' 6" " .....	"	4,786 13 4	"
"	"	800 " 5' 3" " .....	"	59 17 5	"
"	December 30	10cwt. packing .....	Geo. Wills & Co.	300 16 1	"
"	"	2 tons plastic metal .....	"	11,370 0 0	"
"	"	3,104 best crucible cast-steel tyres .....	T. K. Stubbins	2,253 2 6	"
"	November 28	200,000 feet blackwood .....	"	"	"
"	"	20,000 sugar pine .....	"	"	"
"	July 3	50 hopper truck (17 subsequently delivered without hoppers at a reduction of £204) (exclusive of wheels and axles) .....	John Coumbe	4,430 0 0	Terowie
"	"	350 30" sided 5' 3" wagons (exclusive of wheels and axles) .....	Jas Martin & Co., Ltd.	29,050 0 0	"
"	"	5 class K locomotive boilers .....	"	5,500 0 0	"
"	"	10 " P locomotives, with duplicates .....	"	32,116 0 0	"
"	"	18 " R " .....	"	71,639 0 0	"
"	"	12 " S " .....	"	48,341 0 0	"
"	"	4 " V " .....	"	8,189 10 0	"
"	"	40 " Y " .....	"	126,731 0 0	"
"	"	8 " Z " .....	"	25,249 10 0	"
"	"	Purchase of 105 tons assorted scrap iron and obsolete links .....	W. R. Cave & Co.	1 10 0	per ton
"	"	78 " uncleaned and unselected scrap iron .....	"	1 5 1½	"
"	December 6	45 " old steel .....	F. H. Snow	1 5 3	"
"	December 6	15 boiler shells .....	Jas. Hooker	11 5 0	"
"	"	10 fireboxes .....	"	5 0 0	"
"	"	2 old portable boilers .....	"	1 0 0	"



## LOCOMOTIVE ENGINEER'S DEPARTMENT.

TABLE XII.—COMPARISON of STORES CONSUMED in REPAIRS DUE to WEAR and TEAR on 5' 3" GAUGE during the YEARS ending JUNE 30th, 1890 and 1891.

	Year ending June 30th, 1890.			Year ending June 30th, 1891.		
	£	s.	d.	£	s.	d.
Locomotive, repairs and renewals .....	6,703	17	11	6,932	2	6
Carriage and wagon, repairs and renewals .....	6,478	18	11	7,151	12	10
Tools and machinery, repairs and renewals .....	1,271	16	11	1,080	7	4

TABLE XIII.—COMPARISON of STORES CONSUMED on the 5' 3" GAUGE in FEEDING LOCOMOTIVES and MACHINERY, APART from WEAR and TEAR.

	Year ending June 30th, 1890.			Year ending June 30th, 1891.		
	£	s.	d.	£	s.	d.
<b>LOCOMOTIVE RUNNING—</b>						
Coal .....	28,469	13	4	45,646	12	3
Coke .....	2,749	13	0	6,342	17	9
Wood .....	640	17	4	1,369	5	4
Oil .....	2,557	0	2	3,471	9	1
Tallow .....	564	13	1	727	19	3
Waste .....	692	13	3	553	10	4
Total .....	35,674	10	2	58,111	14	0
<b>MACHINERY—</b>						
Coal .....	1,740	17	0	2,431	7	7
Coke .....	481	11	6	849	4	7
Wood .....	5	10	0	25	8	7
Oil .....	157	7	10	191	0	5
Tallow .....	31	5	10	34	5	9
Waste .....	43	6	11	37	0	10
Total .....	2,459	19	1	3,568	7	9

TABLE XIV.—CONSUMPTION of FUEL, OIL, &amp;c., by LOCOMOTIVES, 5' 3" GAUGE, for YEAR ending JUNE 30th, 1891.

System.	Average Load, including Engine and Tender, in Tons.	Consumption of—							Relative Cost of Consumption per 100 Tons per Mile in Pence, including Engine and Tender.		
		Fuel in Lbs.					Lubricants per 100 Miles.		At Last Year's Rates.	At Average Paid during Current Year.	
		Per Mile.				Per 100 Tons per Mile.	Oil in Pints.	Grease in Lbs.			
		Coal.	Coke.	Wood.	Total.						
Mixed and goods .....	216	23·83	3·00	1·76	28·59	13·24	5·61	1·95	1·67	2·26	
Port, Semaphore, and Dry Creek passenger .....	154	15·22	19·51	1·97	36·70	23·83	5·84	2·35	2·56	4·42	
Largs Bay passenger .....	63	27·43	2·12	3·14	32·69	51·89	7·60	3·78	6·68	8·79	
Strathalbyn and Victor Harbor .....	89	19·45	3·01	3·65	26·11	29·34	5·25	3·35	3·57	4·84	
Adelaide, Strathalbyn, and Serviceton .....	165	37·22	1·42	1·76	40·40	24·48	6·09	2·97	3·13	4·10	
Strathalbyn and Milang .....	81	10·05	6·36	8·62	25·03	30·90	4·20	3·24	2·98	4·50	
Adelaide and Dry Creek passenger .....	95	8·23	12·49	4·82	25·54	26·88	7·52	2·81	2·88	4·80	
Total .....	123	20·20	6·84	3·67	30·72	28·65	6·02	2·92	3·35	4·82	

TABLE XV.—CONSUMPTION of FUEL and OIL, &amp;c., by LOCOMOTIVES, 3' 6" GAUGE, for YEAR ending JUNE 30th, 1891.

System.	Average Load, including Engine and Tender, in Tons.	Consumption of—							Relative Cost of Consumption per 100 Tons per Mile in Pence, including Engine and Tender.	
		Fuel in Lbs.					Lubricants per 100 Miles.		At Average Rates Paid during Current Year.	At Average Rates Paid during Current Year on Midland and Southern Lines.
		Per Mile.				Per 100 Tons per Mile.	Oil in Pints.	Grease in Lbs.		
		Coal.	Coke.	Wood.	Total.					
Western .....	142	18·51	5·05	2·10	25·66	18·07	2·18	1·97	2·95	2·99
Northern .....	192	21·47	2·39	1·68	25·54	13·30	4·06	2·43	1·94	2·24
South-Eastern .....	126	14·65	—	2·37	17·22	13·67	1·11	0·81	1·52	2·04
Total .....	153	18·28	2·48	2·05	22·81	15·01	2·45	1·74	2·14	2·42

LOCOMOTIVE

LOCOMOTIVE ENGINEER'S DEPARTMENT.  
TABLE XVI.—SUMMARY of TOTAL LOCOMOTIVE MILEAGE (ALL LINES) for YEARS ENDING JUNE, 30th, 1890 and 1891.

System.	Year ending June 30th, 1890.						Year ending June 30th, 1891.					
	Ordinary Trains.	Special Trains.	Total Train Miles.	Shunting.	Ballasting.	Total.	Ordinary Trains.	Special Trains.	Total Train Miles.	Shunting.	Ballasting.	Total.
Midland .....	1,017,495	74,709	1,092,204	526,936	5,699	1,624,839	1,098,681	114,016	1,212,697	588,716	5,894	1,805,307
Southern (3' gauge, Adelaide to Port Victor, Milling, and Serviceton) .....	509,218	64,271	573,489	123,364	3,214	700,067	515,802	96,026	611,828	150,887	602	763,117
Total 3' gauge .....	1,526,713	138,980	1,665,693	650,300	8,913	2,324,906	1,614,483	210,042	1,824,525	737,403	6,496	2,568,424
Southern (3' gauge, Bordertown to Ser- viceton) .....	—	847	847	4,600	—	5,447	—	1,216	1,216	4,299	—	5,515
Western .....	89,852	11,438	101,290	37,748	3,834	142,872	98,089	11,378	109,467	40,529	1,050	146,046
Northern .....	1,185,091	129,432	1,314,523	411,225	12,116	1,737,864	1,483,428	135,374	1,618,802	495,272	19,486	2,133,560
South-Eastern .....	136,002	5,733	141,735	26,121	1,602	169,458	136,001	5,767	141,768	25,938	530	168,236
Total 3' gauge (exclusive of Palmerston)	1,410,945	147,450	1,558,395	479,694	17,552	2,056,841	1,712,518	153,735	1,866,253	566,038	21,066	2,453,357
Total all Lines (exclusive of Palmerston)	2,937,658	286,430	3,224,088	1,129,994	26,465	4,380,547	3,327,001	363,777	3,690,778	1,303,441	27,562	5,021,781
Palmerston .....	27,448	998	28,446	7,836	3,079	39,361	30,270	1,200	31,470	10,391	2,248	44,109

Table XVII. shows the wages expenditure (including travelling expenses), 5ft. 3in. gauge, in detail for the two years ending June 30th, 1890, and 1891.

TABLE XVII.

	Year ending June 30th, 1890.			Year ending June 30th, 1891.		
	£	s.	d.	£	s.	d.
Superintendence and office expenses .....	8,983	6	8	9,996	6	0
Tools and machinery and shop expenses .....	7,789	16	6	8,807	2	10
Locomotive running expenses .....	36,481	2	4	41,342	16	1
Locomotive repairs and renewals .....	15,429	5	11	17,403	19	4
Carriage and wagon repairs and renewals .....	*16,658	0	1	*16,549	0	9
Outside departments .....	31,936	0	2	33,542	6	8
Total .....	116,277	11	8	127,641	9	8

\* Including repairs to intercolonial joint-stock vehicles (1890), £331 12s. 7d., and (1891), £1,154 7s. 2d.

## LOCOMOTIVE ENGI

In Table XVIII. is given an abstract of the total expenditure, after reimbursements, of Locomotive  
TABLE

	Year ending June 30th, 1890.																				
	5' 3" Gauge.						5' 6" Gauge.						Total all Systems, exclusive of Palmerston.								
	Midland System.			Southern System.			Southern System.		Western System.		Northern System.			South-Eastern System.							
EXPENSES—	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.			
Locomotive running .....	50,594	18	8	25,340	10	4	24	19	0	4,802	0	7	49,466	1	2	4,148	19	8	134,377	9	5
Locomotive, repairs and renewals	16,324	16	0	5,661	19	0	7	18	2	925	9	2	11,800	5	7	1,315	2	0	36,035	9	11
Carriages, repairs and renewals	8,913	3	6	5,440	6	9	2	16	7	388	16	4	2,026	16	0	470	18	10	17,194	18	0
Wagons, repairs and renewals ..	5,647	5	7	2,581	17	0	2	5	8	625	11	9	4,054	3	10	378	8	2	13,289	12	0
General charges .....	6,591	13	4	3,046	9	3	3	9	4	575	5	3	4,893	12	4	577	15	9	15,688	5	3
Total .....	88,071	17	1	42,071	2	4	41	8	9	7,267	3	1	72,242	18	11	6,891	4	5	216,585	14	7
DECREASE—																					
Locomotive running .....	—			—			—			—			—			—			—		
Locomotive, repairs and renewals	—			—			—			—			—			—			—		
Carriages, repairs and renewals	—			—			—			—			—			—			—		
Wagons, repairs and renewals ..	—			—			—			—			—			—			—		
General charges .....	—			—			—			—			—			—			—		
Total .....	—			—			—			—			—			—			—		
INCREASE—																					
Locomotive running .....	—			—			—			—			—			—			—		
Locomotive, repairs and renewals	—			—			—			—			—			—			—		
Carriages, repairs and renewals ..	—			—			—			—			—			—			—		
Wagons, repairs and renewals ..	—			—			—			—			—			—			—		
General charges .....	—			—			—			—			—			—			—		
Total .....	—			—			—			—			—			—			—		

NEER'S DEPARTMENT.

Department on all lines for the years ending June 30th, 1890 and 1891.  
XVIII.

Year ending June 30th, 1891.										
3' 6" Gauge.	3' 3" Gauge.			3' 6" Gauge.				Total all Systems exclusive of Palmerston.	3' 6" Gauge.	
Palmerston System.	Midland System.	Southern System.	Southern System.	Western System.	Northern System.	South-Eastern System.	Palmerston System.			
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
1,467 14 0	70,218 7 3	34,625 18 9	39 10 7	5,297 8 1	67,840 4 11	4,610 16 0	182,632 5 7	1,558 19 2		
102 11 6	16,226 11 3	6,845 19 5	16 9 1	783 5 11	12,038 2 8	1,919 0 4	37,829 9 8	227 13 3		
64 12 9	8,935 18 5	5,239 4 4	3 14 10	781 8 1	2,413 14 5	436 17 8	17,760 17 9	21 7 4		
60 3 9	5,932 14 5	2,864 13 4	3 9 1	904 12 5	5,690 17 3	403 4 3	15,799 10 9	170 10 1		
128 1 10	9,507 8 1	4,342 3 2	7 15 2	719 19 7	7,650 12 6	906 0 3	23,133 18 9	198 3 7		
1,823 8 10	110,820 19 5	53,917 19 0	70 18 9	8,436 14 1	95,633 12 9	8,275 18 6	277,166 2 6	2,176 13 5		
—	—	—	—	—	—	—	—	—		
—	98 4 9	—	—	142 3 3	—	—	240 8 0	—		
—	—	201 2 5	—	—	—	34 1 2	235 3 7	43 5 5		
—	—	—	—	—	—	—	—	—		
—	98 4 9	201 2 5	—	142 3 3	—	34 1 2	475 11 7	43 5 5		
—	—	—	—	—	—	—	—	—		
—	19,623 8 7	9,285 8 5	14 11 7	495 7 6	18,374 3 9	461 16 4	48,254 16 2	91 5 2		
—	—	1,184 0 5	8 10 11	—	237 18 1	603 18 4	2,034 7 9	125 1 9		
—	22 14 11	—	0 18 3	392 11 9	384 18 5	—	801 3 4	—		
—	285 8 10	282 16 4	1 3 5	279 0 8	1,636 13 5	24 16 1	2,506 18 9	110 6 4		
—	2,015 14 9	1,295 13 11	4 5 10	144 14 4	2,757 0 2	328 4 6	7,445 13 6	70 1 9		
—	22,847 7 1	12,047 19 1	29 10 0	1,311 14 3	23,390 13 10	1,418 16 3	61,045 19 6	396 15 0		

## LOCOMOTIVE ENGINEER'S DEPARTMENT.

TABLE XIX.—LOCOMOTIVE DEPARTMENT WORKING DETAIL EXPENSES (ALL LINES) for the YEAR ending JUNE 30th, 1891.

Section.	5' 3" Gauge.				3' 6" Gauge.			
	Midland System.		Southern System.		Southern System.		Western System.	
	Wages. £ s. d.	Material. £ s. d.	Total. £ s. d.	Wages. £ s. d.	Material. £ s. d.	Total. £ s. d.	Wages. £ s. d.	Material. £ s. d.
<b>LOCOMOTIVE RUNNING EXPENSES—</b>								
General charges proportion—								
Tools and machinery, repairs and renewals	2,621 3 0	1,184 18 2	3,805 21 2	2 2 4	—	2 2 4	277 13 2	—
Engines, firemen, cleaners, and laborers	31 7 1	15 13 6	47 0 7	0 1 4	0 0 8	0 1 12	—	—
Bonuses paid to engine-men	24,167 4 4	—	24,167 4 4	18 9 5	—	18 9 5	2,373 10 6	—
Oil, tallow, and other stores	249 18 6	3,830 15 8	4,079 14 4	0 3 4	1 7 6	2 0 10	70 0 0	—
Fuel and wages of fuelmen	1,256 3 4	36,416 8 8	37,672 12 0	695 15 7	1,945 4 5	2,640 19 2	—	233 2 8
Working and repairs	994 19 11	1,783 7 7	2,777 16 8	334 1 7	373 13 0	707 14 7	195 14 2	1,968 18 7
Holiday allowances	814 6 10	—	814 6 10	334 11 2	—	334 11 2	248 7 4	101 11 4
Injury and sick allowances	121 18 11	—	121 18 11	35 14 1	—	35 14 1	82 12 8	—
Lodging and travelling allowances	1,065 5 10	—	1,065 5 10	365 8 5	—	365 8 5	143 7 0	—
Gross total	31,232 7 9	42,035 5 5	73,267 13 2	25 19 5	16 0 10	42 0 3	3,354 0 2	2,333 7 2
Less reimbursements for water sold and ballasting	240 1 3	181 1 1	421 2 4	0 3 2	0 3 2	0 5 4	69 7 11	42 18 2
Net total	31,012 6 6	41,854 4 4	72,866 10 10	25 16 3	15 18 8	41 14 11	3,284 12 3	2,290 9 0
<b>LOCOMOTIVE REPAIRS AND RENEWALS—</b>								
General charges proportion—								
Superintendence and office expenses	1,452 6 7	1,352 6 7	2,804 13 3	1 5 3	—	1 5 3	54 19 0	—
Tools and machinery, repairs and renewals, holidays, injury allowances, &c.	1,689 15 6	834 17 9	2,523 13 5	1 13 7	0 16 10	2 10 5	36 12 8	—
Locomotive repairs and renewals	11,789 13 6	3,411 6 11	15,200 0 5	12 12 3	4 13 8	17 5 11	517 16 7	383 1 6
Do. do. due to accidents	708 19 7	157 6 3	865 26 0	—	—	—	—	—
Locomotive alterations and additions	31 8 2	12 11 11	44 0 1	6 15 6	—	6 15 6	31 12 1	5 16 4
Lodging and travelling expenses	7 10 6	—	7 10 6	14 1 0	—	14 1 0	11 5 6	—
Gross total	15,454 13 10	4,946 2 9	20,400 16 7	15 11 7	5 10 6	21 2 1	688 18 6	375 10 6
Less reimbursements for ballasting	264 1 11	53 3 7	317 5 6	0 14 1	0 3 3	0 17 4	95 4 0	21 2 1
Net total	15,190 11 11	4,792 19 2	19,983 11 1	14 17 6	5 7 3	20 4 9	593 14 6	354 8 5
<b>COACHING REPAIRS AND RENEWALS—</b>								
General charges proportion—								
Superintendence and office expenses	624 7 9	624 7 9	1,248 15 7	0 5 9	—	0 5 9	38 10 8	—
Tools and machinery, repairs and renewals, holidays, injury allowances, &c.	832 10 5	416 5 2	1,248 15 7	0 7 8	0 3 10	0 11 6	48 0 11	29 0 6
Coaching repairs and renewals	3,923 1 4	2,508 0 8	6,431 2 0	2 17 2	0 17 3	3 14 5	372 14 8	843 8 1
Do. do. due to accidents	66 3 9	32 13 1	98 16 10	0 0 3	—	0 0 3	—	—
Do. Alterations and additions	248 0 5	155 10 7	403 11 0	0 0 2	—	0 0 2	12 13 11	—
Lodging and travelling expenses	2 8 7	—	2 8 7	0 0 2	—	0 0 2	2 11 5	—
Total	7,696 12 3	3,112 9 6	10,809 1 9	3 11 0	1 1 1	4 12 1	474 11 7	372 8 7
<b>GOODS AND LIVESTOCK REPAIRS AND RENEWALS—</b>								
General charges proportion—								
Superintendence and office expenses	408 0 5	408 0 5	816 1 0	0 6 0	—	0 6 0	53 19 1	—
Tools and machinery, repairs and renewals, holidays, injury allowances, &c.	537 7 4	268 13 7	805 21 1	0 7 11	0 4 0	0 11 11	71 18 10	35 19 5
Goods, &c., due to renewals	3,829 7 8	1,720 14 5	5,550 2 1	2 19 7	0 14 1	3 13 8	523 15 5	379 0 1
Do. do. due to accidents	40 11 5	43 17 4	83 28 9	0 0 3	—	0 0 3	4 16 0	1 5 8
Do. Alterations and additions	160 0 2	220 15 3	380 15 5	0 0 3	—	0 0 3	6 0 10	2 15 7
Lodging and travelling expenses	1 7 10	—	1 7 10	0 0 1	—	0 0 1	0 1 7	—
Gross total	4,971 14 10	2,256 0 7	7,227 15 5	3 13 10	0 18 5	4 12 5	665 9 9	419 0 4
Less reimbursements for ballasting	57 14 3	28 5 5	85 19 8	0 3 6	0 1 0	0 5 6	18 0 4	6 0 1
Net total	4,914 0 7	2,227 15 2	7,141 15 0	3 10 4	0 16 8	4 7 0	647 9 0	413 0 3

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LOCOMOTIVE ENGINEER'S DEPARTMENT.  
TABLE XIX.—LOCOMOTIVE DEPARTMENT WORKING DETAIL EXPENSES (ALL LINES) for the YEAR ending JUNE 30th, 1891—continued.

Section.	3' 6" Gauge.				Total all Lines, Exclusive of Palmerston.				Palmerston System.			
	Northern System.		South-Eastern System.		Wages.	Material.	Total.	Wages.	Material.	Total.	Wages.	Material.
	Wages.	Material.	Total.	Wages.	Material.	Total.	Wages.	Material.	Total.	Wages.	Material.	Total.
<b>LOCOMOTIVE RUNNING EXPENSES—</b>												
General charges proportion—												
Superintendence and office expenses.....	3,303 16 2	—	3,303 16 2	247 11 9	—	247 11 9	7,637 4 7	104 16 5	—	104 16 5	—	104 16 5
Tools and machinery, repairs and renewals.....	20 12 10	10 6 5	30 19 3	7 17 7	3 18 10	11 16 5	65 3 11	4 1 5	2 0 9	6 1 4	—	6 1 4
Engine-men, firemen, cleaners, and laborers.....	29,954 4 3	—	29,954 4 3	2,153 12 10	—	2,153 12 10	69,489 6 8	865 16 10	—	865 16 10	—	865 16 10
Bonuses paid to engine-men.....	210 0 0	—	210 0 0	19 16 8	—	19 16 8	680 0 0	—	—	—	—	—
Oil, tallow, and other stores.....	4,803 7 0	—	4,803 7 0	160 10 10	—	160 10 10	10,983 7 8	—	—	—	—	—
Fuel and wages of fuelmen.....	1,469 10 1	26,889 11 4	28,359 1 5	114 9 4	1,518 17 4	1,633 6 8	3,732 12 1	21 10 8	83 14 4	104 16 5	—	104 16 5
Working and repairs.....	1,670 9 7	1,064 10 4	2,734 19 11	261 14 3	187 16 11	449 11 2	3,421 17 6	168 3 7	48 6 10	216 10 5	—	216 10 5
Holiday allowances.....	1,113 0 11	—	1,113 0 11	81 0 2	—	81 0 2	2,428 5 2	19 10 6	—	19 10 6	—	19 10 6
Injury and sick allowances.....	98 5 11	—	98 5 11	10 14 1	—	10 14 1	240 10 6	1 4 4	—	1 4 4	—	1 4 4
Lodging and travelling allowances.....	1,956 0 0	—	1,956 0 0	134 15 0	—	134 15 0	3,905 19 3	60 13 6	—	60 13 6	—	60 13 6
Gross total.....	38,796 19 9	32,767 15 1	71,564 14 10	3,031 11 8	1,871 3 11	4,902 15 7	91,638 18 8	1,335 17 3	770 7 11	2,106 5 2	—	2,106 5 2
Less reimbursements for water sold and ballasting.....	819 4 4	570 10 2	1,389 14 6	18 17 4	13 14 1	33 11 5	1,174 6 5	207 13 5	138 14 0	346 7 5	—	346 7 5
Net total.....	38,977 15 5	33,197 4 11	72,175 0 4	3,012 14 4	1,857 9 10	4,870 4 2	90,464 12 3	1,028 3 10	641 13 11	1,659 17 9	—	1,659 17 9
<b>LOCOMOTIVE REPAIRS AND RENEWALS—</b>												
General charges proportion—												
Superintendence and office expenses.....	997 1 5	—	997 1 5	147 1 7	—	147 1 7	2,940 8 10	15 10 1	—	15 10 1	—	15 10 1
Tools and machinery, repairs and renewals.....	1,263 15 3	631 7 8	1,894 23 11	196 2 1	98 1 0	294 3 2	3,833 18 6	20 13 5	10 6 8	31 0 1	—	31 0 1
Locomotive repairs and renewals.....	9,630 6 10	2,988 15 10	12,619 2 8	1,470 16 7	548 6 0	2,017 2 7	28,293 13 0	157 1 3	70 9 0	227 10 3	—	227 10 3
Do. do. due to accidents.....	—	—	—	—	—	—	158 8 4	—	—	—	—	—
Locomotive alterations and additions.....	8 8 3	0 18 4	9 6 7	0 6 2	0 6 2	0 12 4	74 6 5	—	—	—	—	—
Lodging and travelling expenses.....	79 19 6	—	79 19 6	3 3 6	—	3 3 6	116 0 6	0 3 0	—	0 3 0	—	0 3 0
Gross total.....	11,978 11 3	3,621 1 10	15,599 13 1	1,817 3 9	644 13 2	2,461 16 11	35,986 11 3	183 7 9	80 15 8	274 3 5	—	274 3 5
Less reimbursements for ballasting.....	539 1 8	131 3 5	670 5 1	82 3 11	19 8 0	101 11 11	1,092 17 9	—	—	—	—	—
Net total.....	11,439 9 7	3,489 18 5	14,929 8 0	1,734 19 10	625 5 2	2,360 5 0	34,893 13 6	183 7 9	80 15 8	274 3 5	—	274 3 5
<b>COACHING REPAIRS AND RENEWALS—</b>												
General charges proportion—												
Superintendence and office expenses.....	159 2 5	—	159 2 5	33 10 2	—	33 10 2	1,219 9 0	1 8 3	—	1 8 3	—	1 8 3
Tools and machinery, repairs and renewals.....	212 3 0	106 1 10	318 4 10	44 13 7	22 6 10	67 0 5	1,632 12 0	1 17 8	0 18 10	2 16 6	—	2 16 6
Coaching repairs and renewals.....	1,321 9 8	648 14 11	1,970 4 7	333 12 1	100 8 11	434 0 10	5,124 14 6	15 3 1	6 1 3	21 4 4	—	21 4 4
Do. do. due to accidents.....	—	—	—	—	—	—	182 17 0	—	—	—	—	—
Do. Alterations and additions.....	268 10 9	164 1 3	433 12 0	1 10 4	—	1 10 4	34 13 10	—	—	—	—	—
Lodging and travelling expenses.....	9 17 10	—	9 17 10	1 6 4	—	1 6 4	395 4 1	0 3 0	—	0 3 0	—	0 3 0
Total.....	1,972 3 8	918 18 0	2,891 1 8	414 12 6	122 15 9	537 8 3	15,049 4 3	18 12 0	7 0 1	25 12 1	—	25 12 1
<b>GOODS AND LIVESTOCK REPAIRS AND RENEWALS—</b>												
General charges proportion—												
Superintendence and office expenses.....	315 15 2	—	315 15 2	34 18 11	—	34 18 11	1,006 8 1	12 3 4	—	12 3 4	—	12 3 4
Tools and machinery, repairs and renewals.....	421 0 3	210 10 1	631 10 4	46 11 11	23 6 0	69 17 11	1,841 17 7	16 4 6	8 2 3	24 6 9	—	24 6 9
Goods &c., repairs and renewals.....	2,990 1 5	2,349 0 2	5,339 1 7	347 18 11	82 4 5	430 3 4	9,635 11 10	74 5 8	28 6 6	103 11 2	—	103 11 2
Do. do. due to accidents.....	63 3 10	122 3 8	185 7 1	—	—	—	112 19 11	—	—	—	—	—
Do. Alterations and additions.....	114 18 7	545 18 5	660 17 0	1 12 1	1 19 3	3 11 4	825 11 5	48 9 0	19 2 5	67 11 5	—	67 11 5
Lodging and travelling expenses.....	31 17 3	—	31 17 3	0 8 11	—	0 8 11	24 9 9	0 7 6	—	0 7 6	—	0 7 6
Gross total.....	3,925 16 6	3,237 11 11	7,163 8 5	431 10 9	107 9 8	539 0 5	12,446 18 7	151 10 0	55 10 2	207 0 2	—	207 0 2
Less reimbursements for ballasting.....	343 10 6	171 15 2	515 5 8	20 12 10	10 6 6	30 19 4	451 8 3	—	—	—	—	—
Net total.....	3,582 6 0	3,065 16 9	6,648 2 9	410 17 11	97 3 2	508 1 1	11,995 10 4	151 10 0	55 10 2	207 0 2	—	207 0 2

## LOCOMOTIVE ENGI

Table XX. is a Statement showing Cost of Locomotive Department per mile worked for the years ending June

System.	Year.	Train Mileage.	Engine Mileage.	Average Miles of Line Open.	Total Locomotive Power.	Running Expenses.			
						Per Train Mile.			Per Mile of Line Open.
						Wages and Material.	General Charges.	Total.	Total.
					£ s. d.	d.	d.	d.	£ s. d.
Midland, 5' 3" gauge .....	1890	1,092,204	1,624,839	230½	88,071 17 1	11-12	0-51	11-63	230 11 8
	1891	1,212,697	1,805,307	231½	110,820 19 5	12-90	0-53	14-43	314 10 1
Southern, 5' 3" gauge .....	1890	573,489	700,067	252½	42,071 2 4	10-00	0-46	11-06	104 14 6
	1891	611,822	763,117	252½	53,917 19 0	13-56	0-47	14-05	141 17 2
Southern, 3' 6" gauge.....	1890	847	5,447	0—	41 8 9	7-03	0-41	7-44	—
	1891	1,216	5,515	0—	70 18 9	7-81	0-43	8-24	—
Western, 3' 6" gauge ... ..	1890	101,390	142,872	138	7,367 8 1	11-38	0-67	12-05	36 16 11
	1891	104,467	146,046	138	8,436 14 1	12-17	0-63	13-80	40 8 0
Northern, 3' 6" gauge .....	1890	1,314,523	1,737,864	720½	72,242 18 11	9-03	0-46	9-49	72 2 11
	1891	1,618,802	2,135,560	769½	95,633 12 9	10-06	0-40	10-55	92 9 11
South-Eastern, 3' 6" gauge .....	1890	141,735	186,458	216	6,891 4 5	7-03	0-41	7-44	20 6 6
	1891	141,768	186,236	216	8,275 18 6	7-81	0-43	8-24	23 10 11
Total 5' 3" gauge .....	1890	1,665,803	2,324,906	483	130,142 19 5	10-33	0-40	11-42	161 6 3
	1891	1,824,525	2,468,424	484½	164,738 18 5	13-79	0-51	14-30	224 9 8
Total 3' 6" gauge, exclusive of Palmerston .....	1890	1,558,395	2,055,641	1,074½	86,442 15 2	9-00	0-47	9-47	87 4 5
	1891	1,866,253	2,453,357	1,123½	112,417 4 1	10-00	0-50	10-50	72 13
Total, all systems, exclusive of Palmerston .....	1890	3,224,088	4,380,547	1,557½	216,585 14 7	10-00	0-48	10-48	90 8 6
	1891	3,690,778	5,021,781	1,807½	277,156 2 6	11-88	0-50	12-38	118 8 1
Palmerston and Pine Creek .....	1890	28,446	39,361	109½	1,523 8 10	12-38	0-87	13-25	14 6 11
	1891	31,470	44,109	109½	2,176 13 5	11-89	0-85	12-74	15 5 0

\* Included in Southern 5' 3" gauge.

## NEER'S DEPARTMENT.

30th, 1890 and 1891 :—

Repairs and Renewals of Locomotives.				Repairs and Renewals of Coaching Stock.				Repairs and Renewals of Goods and Live Stock.				Total.				
Per Train Mile.			Per Mile of Line Open.	Per Train Mile.			Per Mile of Line Open.	Per Train Mile.			Per Mile of Line Open.	Per Train Mile.			Per Mile of Line Open.	Per Engine Mile.
Wages and Material.	General Charges.	Total.	Total.	Wages and Material.	General Charges.	Total.	Total.	Wages and Material.	General Charges.	Total.	Total.	Wages and Material.	General Charges.	Total.	Total.	
d.	d.	d.	£ s. d.	d.	d.	d.	£ s. d.	d.	d.	d.	£ s. d.	d.	d.	d.	£ s. d.	d.
3-59	0-50	4-09	80 15 11	1-96	0-27	2-23	44 1 4	1-24	0-16	1-40	27 12 10	17-91	1-44	19-35	382 1 9	13-01
3-31	0-74	3-95	86 4 7	1-77	0-37	2-14	46 12 10	1-17	0-24	1-41	30 16 4	20-05	1-88	21-93	478 8 10	11-73
2-37	0-84	2-71	25 13 9	2-28	0-32	2-60	24 12 0	1-08	0-15	1-23	11 12 2	16-33	1-27	17-60	186 12 5	14-42
2-69	0-57	3-26	32 18 2	2-06	0-43	2-49	25 1 4	1-12	0-23	1-35	13 14 1	19-45	1-70	21-15	218 10 9	16-96
2-23	0-36	2-59	—	0-80	0-10	0-90	—	0-64	0-11	0-75	—	10-70	0-98	11-68	—	1-83
3-25	0-75	4-00	—	0-74	0-17	0-91	—	0-68	0-18	0-86	—	12-48	1-53	14-01	—	3-09
2-20	0-35	2-55	7 15 10	0-80	0-10	0-90	2 15 2	1-48	0-24	1-72	5 5 4	15-86	1-86	17-22	52 13 2	12-21
1-79	0-38	2-17	6 17 5	1-68	0-27	1-95	6 2 9	2-06	0-38	2-46	7 14 6	17-72	1-66	19-38	61 2 8	13-86
2-16	0-28	2-44	18 10 9	0-37	0-05	0-42	3 3 7	0-74	0-10	0-84	6 7 5	12-30	0-89	13-19	100 4 8	9-93
1-79	0-43	2-22	19 8 0	0-36	0-07	0-43	3 15 2	0-84	0-14	0-98	8 12 6	13-05	1-13	14-18	124 5 7	10-76
2-23	0-36	2-59	7 1 5	0-80	0-10	0-90	2 9 0	0-64	0-11	0-75	2 1 2	10-70	0-98	11-68	1 16 1	9-76
3-25	0-75	4-00	10 18 7	0-74	0-17	0-91	2 9 9	0-68	0-18	0-86	2 7 1	12-48	1-53	14-01	38 6 4	11-81
3-17	0-45	3-62	51 19 8	2-07	0-29	2-36	33 17 9	1-18	0-16	1-34	19 5 3	17-35	1-39	18-74	269 8 11	13-43
3-03	0-63	3-71	58 8 6	1-86	0-39	2-25	35 7 11	1-16	0-24	1-40	21 17 10	19-34	1-62	21-66	340 3 11	15-39
2-16	0-30	2-46	14 17 3	0-44	0-05	0-49	2 19 7	0-78	0-11	0-89	5 7 4	12-33	0-93	13-31	80 8 7	10-09
1-90	0-45	2-35	16 5 0	0-46	0-09	0-55	3 16 2	0-90	0-16	1-06	7 6 3	13-26	1-20	14-46	100 1 2	11-00
2-68	0-38	3-06	26 7 6	1-28	0-18	1-46	12 11 3	0-99	0-13	1-12	9 13 6	14-95	1-17	16-12	139 0 9	11-87
2-64	0-57	3-03	28 19 1	1-15	0-24	1-39	13 6 5	1-03	0-19	1-22	11 14 2	16-52	1-50	18-02	172 7 9	13-35
0-86	0-08	0-94	1 0 5	0-55	0-04	0-59	0 12 9	0-51	0-09	0-60	0 12 11	14-30	1-08	15-38	16 13 0	11-12
1-74	0-35	2-09	2 10 1	0-18	0-08	0-19	0 4 8	1-30	0-28	1-58	1 17 10	15-09	1-51	16-60	19 17 7	11-84



LOCOMOTIVE ENGINEER'S DEPARTMENT.

Table XXI. is a comparative summary of working detail expenses (all lines) for the last three years:—

	Year ending June 30th, 1889.	Year ending June 30th, 1890.	Year ending June 30th, 1891.
	£ s. d.	£ s. d.	£ s. d.
<b>LOCOMOTIVE RUNNING EXPENSES—</b>			
General charges proportion—Superintendence and office expenses, tools, repairs, renewals, &c. ....	5,876 9 6	6,587 6 3	7,845 19 0
Enginemmen, cleaners, laborers, &c. ....	52,899 6 1	59,508 7 5	70,345 2 6
Bonuses paid to enginemmen .....	—	—	680 0 0
Oil, tallow, and other stores .....	7,583 0 1	8,349 18 7	11,077 2 0
Fuel, with wages of fuelmen .....	54,945 9 5	58,675 4 8	90,581 11 3
Water—Working and repairs .....	6,732 2 1	6,905 4 5	7,150 19 3
Holiday allowances .....	657 4 11	1,572 9 2	2,445 15 8
Injury and sick allowances .....	32 9 9	329 13 2	281 14 10
Lodging and travelling expenses .....	2,915 14 1	3,117 15 4	3,966 12 9
Gross total .....	131,641 15 11	145,045 19 0	194,374 17 3
Less reimbursements for water sold and ballasting .....	2,997 6 3	2,613 9 4	2,337 13 6
Net total .....	128,644 9 8	142,432 9 8	192,037 3 9
<b>LOCOMOTIVE REPAIRS AND RENEWALS—</b>			
General charges proportion { Superintendence and office expenses .....	2,297 0 5	2,529 5 7	2,955 18 11
Tools and machinery—			
Repairs and renewals, holidays, sick, and injury allowances .. { Wages .....	1,531 6 10	1,719 10 5	3,874 11 11
{ Stores .....	765 13 4	809 15 2	1,937 5 11
Locomotive - Repairs and renewals { Wages .....	22,704 0 6	25,095 4 5	28,450 14 3
{ Stores .....	9,233 12 11	11,983 9 7	9,761 17 4
“ due to accidents .....	112 4 6	77 18 1	862 14 9
“ due to preventable causes .....	64 8 2	—	—
Additions and alterations .....	138 8 4	140 12 10	97 16 9
Lodging and travelling expenses .....	58 17 6	113 10 3	116 3 6
Gross total .....	36,905 12 6	42,469 6 4	48,057 3 4
Less reimbursements for ballasting—Wages and material ..	1,267 15 7	1,272 13 9	1,232 3 8
Net total .....	35,637 16 11	41,196 12 7	46,824 19 8
<b>CARRIAGES AND WAGONS—</b>			
General charges proportion { Superintendence and office expenses .....	1,832 15 4	2,085 4 10	2,239 8 8
Tools and machinery—			
Repairs and renewals, holidays, sick and injury allowances .. { Wages .....	1,221 16 9	1,390 3 4	2,982 11 9
{ Stores .....	610 18 4	695 1 6	1,496 6 2
Carriage and wagons—Repairs and renewals { Wages .....	16,385 6 6	19,241 7 10	21,148 18 6
{ Stores .....	8,372 19 11	9,234 1 0	10,556 13 8
“ due to accidents .....	123 18 10	479 17 0	496 13 1
“ due to preventable causes .....	116 16 11	—	—
Additions and alterations .....	3,707 16 0	2,362 17 1	2,184 2 2
Lodging and travelling expenses .....	86 2 3	42 4 9	42 9 1
Gross total .....	32,458 10 10	35,530 17 4	41,147 3 1
Less reimbursements for ballasting—Wages and material ..	834 10 5	751 1 2	676 10 7
Net total .....	31,624 0 5	34,779 16 2	40,470 12 6

THOS. ROBERTS, Locomotive Engineer.  
ENGINEER

## ENGINEER-IN-CHIEF'S REPORT.

Engineer-in-Chief's Office, Adelaide, September 30th, 1891.

Gentlemen—I beg to submit, for your information, the subjoined report on the works carried out in connection with the South Australian Railways by the department during the year ending June 30th, 1891.

### RAILWAYS IN COURSE OF CONSTRUCTION.

**GREAT NORTHERN RAILWAY EXTENSION**—Strangways Springs and Peake, and Peake and Angle Pole Railway.—3ft. 6in. gauge.

*Length of Main Line, 144 miles 42 chains.*

The whole of the works on this line are now virtually completed, with the exception of some minor ones and the Neales bridge, where the temporary deviation is still being used by traffic. The work has been carried on departmentally by day and piece work, as heretofore, the number of men employed varying from 352 in July, 1890, to 83 in June, 1891, giving an average number of 196 for the year. The amount spent, including expenditure upon rolling-stock, has been £57,217 4s. 9d., as compared with £193,896 11s. 6d. last year. That portion of the line between Warrina and Oodnadatta was opened for general traffic on the 7th January, 1891. This included about seven miles of the Strangways Springs and Peake line, the balance of forty-eight miles being on the Peake and Angle Pole section. The telegraph line has been completed from North Creek, thirty-seven miles north of Warrina, to Oodnadatta, and telephone connected at Oodnadatta, the connection at North Creek being dispensed with. New telephones have been fixed at Warrina, Algebuckina, and Oodnadatta.

#### **EARTHWORKS.**

All the earthworks have been completed, including approaches to the Neales bridge, and widening outlets, &c., where found necessary.

#### **BRIDGES AND CULVERTS.**

The north and south abutments of the Neales bridge have been completed, and all the pier foundations excavated. The whole of the cylinders have been planted, with the exception of two or three at the north end of bridge, and eleven spans of the wrought-iron superstructure completed. The painting of the bridge has been commenced and two spans are fully coated. All other bridges, flood openings, culverts, and pipe drains have been completed from 223 miles 4½ chains to the terminus, with the exception of the guard rails, &c., to the bridges. Steel angle guard rails have been laid on bridges from 194 miles 69 chains to 205 miles 73 chains, inclusive; and 40lb. iron guard rails from 205 miles 73 chains to North Creek, with the exception of bridges at 212 miles 36 chains and Neales. Fender piles have been planted at the first and second bridges over Oodloodlana Creek and at North Creek bridge.

#### **PERMANENT WAY.**

The line has been fully ballasted. The rails have been laid on all the bridges north of and inclusive of the Ockenden, where deviations had been made, and at both ends of Neales bridge from 212 miles 20 chains to 212 miles 50 chains, and from 213 miles to 213 miles 15 chains. Mile and gradient posts have been fixed between Warrina and Oodnadatta. The approaches to Neales bridge are ballasted, but not boxed up. The River Neales deviation is still being used by traffic, and has suffered little or no damage from flood waters. About 82 chains of permanent sidings have been laid in the station yard at Oodnadatta, comprising one goods and one passenger siding, which are laid with 50lb. plant, and the engine and carriage shed sidings and triangle, laid with 40lb. plant. At Warrina and Algebuckina (Neales bridge) the sidings, laid down for the accommodation of heavy bridge material, and some of the temporary sidings put in at the main camp, Warrina, for construction purposes, have been taken up; three sidings being left in for the convenience of removing plant. The coal siding and one of the legs of the North Creek ballast siding have also been removed.

#### **FENCING.**

Fencing has been erected to protect the south signals at Warrina, while the north signal wire has been laid in a tube from station yard boundary. The signals, station yard, and triangle at Oodnadatta have also been fenced.

#### **WATER SUPPLY.**

**Algebuckina.**—The pumping station has been removed from original site, and the pumping-house built alongside the waterhole. **Mount Dutton.**—All masonry work in connection with the weir and pitching spoil banks has been completed, and the reservoir fenced. **Little Cadnowie.**—Cattle trough and spring fenced. **Oodnadatta.**—Reservoir, capacity about 6,500,000 gallons, completed and fenced, overhead tank, pumping-house, engine, and boiler erected, and about 60 chains of 3in. and 4in. main laid and connected with overhead tank.

#### **STATION ACCOMMODATION.**

**Warrina.**—Northern home and distant signals completed. **Algebuckina.**—Closets and urinals completed. **Mount Dutton.**—Cattle yards and closets and urinals completed. **Oodnadatta.**—Two cottages

I—No. 47.

cottages erected for telegraph, locomotive, and traffic employes, cottages fenced and water service laid. House used by head clerk at Warrina removed and re-erected for foreman porter, house fenced, and water laid on. Lamp room built. Box office used by stationmaster at Warrina removed and re-erected for district foreman. House and office for telegraph and stationmaster and assistant erected, with 10,800 gallon underground tank and pump to same, and water service laid from overhead tank. Storeroom, cart shed, and smithy built for use of Telegraph Department. Second-class passenger station with waiting-room, porters' room, and urinals erected, and water laid on. Second-class goods shed and platform, 5 ton crane, 10 ton weighbridge, weighbridge-house, engine and carriage sheds, three outside ashpits, 5,000 gallon underground tank with pump to same completed; 3in. water service laid and connected with sheds, and hydrants fixed; signals erected; and coal floor completed.

MAINTENANCE COTTAGES.

One block consisting of three cottages of three rooms each has been built at 225 miles 67 chains, and one at 237 miles 53 chains, respectively, with 1,200 gallon tank and pump to same, and a similar block at Oodnadatta with water service laid from overhead tank.

WALLAROO AND MOONTA LINE—3ft. 6in. gauge.

Length of Main Line, 10 miles 70 chains.

Act No. 490 of 1890 authorised the construction of a locomotive line from Wallaroo to Moonta upon a 3ft. 6in. gauge, and the abandonment of the existing tramways between Wallaroo and Moonta and Kadina and Wallaroo. The work was commenced departmentally on the 6th of May, and a fair start made on the 25th of May, the average number of men employed being 170.

EARTHWORKS.

The earthworks have been completed along the new portion of the line from 0 miles to 2 miles 20 chains, and existing earthworks increased where necessary along the old tramway from 2 miles 20 chains to 5 miles. The earthworks are also in progress from 10 miles 2 chains to 10 miles 48 chains. All necessary clearing and grubbing has been done.

BRIDGES AND CULVERTS.

All pipe drain culverts have been completed from 0 miles to 3 miles 21 chains.

RAILWAYS OPEN FOR TRAFFIC.

The following extensions have been opened for traffic during the year ending June 30th, 1891 :—

Name of Extension.	Gauge.	Main Line.			Sidings.	
		Double.	Single.	Mixed Gauge.	Plain.	Mixed Gauge.
Warrina to Oodnadatta.....	3' 6"	—	miles. chns. 5 1/4 34	—	—	—

Additional sidings have also been opened on various lines.

This makes the mileage open on June 30th, 1891, as follows :—

Name of System.	Gauge.	Main Line.			Sidings.	
		Double.	Single.	Mixed Gauge.	Plain.	Mixed Gauge.
		miles. chns.	miles. chns.	miles. chns.	miles. chns.	miles. chns.
Midland .....	Locomotive.. 5' 3"	10 17	*220 30	—	60 75	0 45
	" 3' 6"	—	—	—	2 59	—
	Horse ..... 5' 3"	—	1 16	—	0 4	—
Southern .....	Locomotive.. "	—	240 17	12 19	20 61	1 69
	" 3' 6"	—	137 47	—	16 35	—
Western .....	Horse ..... 5' 3"	—	20 0	—	—	—
	" 3' 6"	—	797 62	—	56 14	—
Northern .....	Locomotive.. "	—	215 78	—	13 46	—
South-Eastern .....	Locomotive.. "	—	146 8	—	7 59	—
Palmerston and Pine Creek (N.T.)	Locomotive.. "	—	10 00	—	—	—
Port Broughton .....	Horse ..... "	—	—	—	—	—
Totals .....	—	10 17	1,789 44	12 19	178 33	2 34

\* This includes the Large to Semaphore line, 1 mile 36 chains.

Or a total of lines open—

Gauge.	Double Line.	Single Line.	Sidings.
	miles. chns.	miles. chns.	miles. chns.
5' 3" .....	10 17	481 63	81 60
3' 6" .....	—	1,307 61	96 53
Mixed 5' 3" and 3' 6" .....	—	12 19	2 34
Totals .....	10 17	1,801 63	180 67

Giving a grand total of 1,812 miles main line, and 180 miles 67 chains sidings.

CONSTRUCTION

## CONSTRUCTION WORKS ON OPEN LINES.

## GENERAL.

In addition to the maintenance of the various lines, the resident engineers and their staffs have carried out works of construction amounting in the aggregate to £55,268 7s. 10d., as compared with £95,893 7s. 11d. for last year. The following statement shows the amount spent on each system of lines, and a list of the principal works of construction is given below:—

	£	s.	d.
Port and North .....	24,396	11	5
Southern .....	1,058	16	11
Hamley, Wakefield, Wallaroo, and Snowtown .....	3,318	12	3
Port Pirie, Terowie, Quorn, and Cockburn .....	11,749	4	7
Great Northern .....	6,741	17	11
South-Eastern .....	2,324	12	9
Palmerston and Pine Creek (N.T.) .....	5,678	12	0
	<hr/>		
	£55,268	7	10

## PORT AND NORTH LINES—5ft. 3in. gauge.

**Adelaide.**—Cabin for shunters and room for check porters built. **Bowden.**—19 chains of sidings laid for South Australian Gas Company, including widening of underway bridge at Chief-street. **Croydon.**—Ladies' waiting-room, and closets and urinals erected. **Kilkenny.**—4½ chains of siding; and turntable constructed for Messrs. Fulton & Co.; and new station office built. **Grand Junction Crossing.**—Alterations to crossing in hand. **Port Adelaide.**—7 chains of siding from Fussell-street to Commercial wharf laid for the Adelaide Steamship Company; 19 chains of siding, and one 20-ton weighbridge constructed for traffic; new stores, offices, kerosine store, closets and urinals, stables, water conservation store, and fencing of stores depôt completed; and five acres of land raised and levelled in depôt. **Islington.**—42 chains of sidings laid for new smithy and erecting shops; fitting and erecting shops, smithy, and offices for Loco. Engineer completed; and water laid on to new shops. **Dry Creek.**—Two new maintenance cottages erected. **Salisbury Cemetery Sidings.**—Signals and interlocking gear erected. **Wasleys.**—Maintenance cottage erected. **Hamley Bridge.**—Alterations to sidings in hand. **Burra Bridge.**—Planking strengthened. **Terowie.**—Loco. barracks built. **Eudunda.**—Metalled roadway constructed. **Miscellaneous.**—Robinson Bridge decked with hardwood blocks; and at Largs Fort, speaking tubes, &c., fixed from conning towers to guns, and parade ground tar paved. **Way and Works Shops.**—*Vide* Special Report, page 70.

## SOUTHERN LINES—5ft. 3in. gauge.

**Port Victor.**—50ft. turntable erected. **Murray Bridge.**—Additional room built to cottage No. 73. **Bordertown.**—Additional room built to cottages Nos. 143 and 144. **Wolsley.**—Roof added to changing platform.

## HAMLEY, WAKEFIELD, WALLAROO, AND SNOWTOWN LINES—3ft. 6in. gauge.

**Halbury.**—New siding laid; existing siding extended; road metalled; shelter shed erected; and three three-roomed maintenance cottages in hand. **82½ Miles, Blyth Line.**—Two three-roomed maintenance cottages erected. **Port Wakefield.**—Additional closet accommodation provided; wheat siding on wharf extended; deepening channel, building retaining wall, and levelling station yard in hand. **South Hummocks.**—Two water columns erected. **Paskeville.**—Small second-class goods shed constructed. **Bute.**—Additional siding accommodation provided. **Barunga Gap.**—Two rooms built to maintenance cottages. **General.**—Verandahs built to eleven blocks of maintenance cottages and survey of horse-power line completed.

## PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES—3ft. 6in. gauge.

**Crystal Brook.**—12 chains of road made. **Gladstone.**—Water column in hand. **Caltowie.**—Drainage of station yard completed. **Petersburg.**—Residence and workshop for electrical fitter completed. **Hammond.**—10 chains of siding laid, and stationmaster's residence built. **Dawson Road.**—The station yard has been shifted from 161 miles 40 chains to 162 miles 24 chains, in connection with which a new station yard has been formed, sidings laid, goods platform and office and tank removed to new site, 3in. main removed and extended, two water columns erected with 6in. main to same, signals removed and re-erected, road approach 15 chains long made and fenced, station yard fenced and extra culvert built; stationmaster's residence and booking and signal office in hand. **Yunta.**—Stationmaster's residence and goods shed completed, and new reservoir in hand. **Mannahill.**—Ashpit and water column completed, and passing siding extended. **Olary.**—New reservoir in hand. **Cockburn.**—Additional sidings laid in; three four-roomed maintenance cottages and cottages for loco. employes in hand. **General.**—Additional rooms built to seven maintenance cottages, and verandahs to cottages generally between Dawson-road and Cockburn; contracts for fencing in hand.

## GREAT NORTHERN LINES—3ft. 6in. gauge.

**Pichi Richi Pass.**—Deviation at 11 miles 53 chains in hand. **Quorn.**—45ft. turntable and additions to loco. foreman's residence completed. **Wilson.**—Weighbridge and office completed. **Parachilna.**—Works for protection of line from floods completed. **Lyndhurst.**—Windmill, tanks, and troughs erected. **Davenport.**—Reservoir, overhead tank, pump, engine house, water column, and main completed. **General.**—Additional rooms to maintenance cottages at Hawker, Hookina, and Puttapa in hand.

SOUTH-

**SOUTH-EASTERN LINES—3ft. 6in. gauge.**

**Naracoorte.**—Extension of loco. shops and loco. foreman and workmen's cottages completed. **Lucindale.**—Sheep and cattle yards and sidings completed, and erection of 25,000 gallon tank in hand. **General.**—Additional rooms to maintenance cottages at Naracoorte, 300 miles 56 chains, and Tantanoola completed.

**PALMERSTON AND PINE CREEK LINE, NORTHERN TERRITORY—3ft. 6in. gauge.**

**Palmerston.**—Erection of home and distant signals completed. **Port Darwin Jetty.**—Two buoys laid for outer moorings, and mooring rings fixed on jetty. **3 miles 43 chains.**—Cattle yards completed. **Southport Road.**—Water supply completed. **Howley.**—Water supply completed. **Fountain Head.**—Cattle yards completed. **Burrundie.**—Home and distant signals erected. **Pine Creek.**—Water supply completed, and home and distant signals erected. **General.**—Verandahs of all first and second class residences enclosed with bamboos.

**MAINTENANCE AND RENEWALS.****GENERAL.**

All the lines and works have been well maintained, and are now generally in good order and condition, with the exception of the line in St. Vincent-street, Port Adelaide, which is not in good order, and which will be re-laid as soon as the rainy season is over. The cost of extraordinary repairs has not been very heavy on any of the lines, except the Port and North, where it has been exceedingly so. This has been caused principally from lifting the line, putting on a very large quantity of ballast, and re-sleeping many miles—necessary in order to make the line fit for the fast speed of trains now run on it. The principal works of maintenance other than ordinary have been—

**PORT AND NORTH LINES.**

**Port Adelaide.**—Relaying sidings. **Smithfield.**—Continuing renewal of fences. **Roseworthy.**—Relaying the line on Roseworthy bank. **Saddleworth.**—Renewing fencing. **Freeling.**—Renewing fencing. **General.**—Relaying different parts of the line and sidings, lifting the line on curves, and re-sleeping and ballasting to fit the line for fast running.

**SOUTHERN LINES.**

**Blackwood.**—Cleaning out and repairing reservoir. **Murray Bridge.**—Raising girders of approach. **Strathalbyn and Goolwa.**—Strengthening and relaying old line with 61lb. rails.

**HAMLEY, WAKEFIELD, WALLAROO, AND SNOWTOWN LINES.**

**Stockyard Creek.**—Cleaning reservoir.

**PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES.**

**Port Pirie.**—Raising Ellen-street, and relaying second line. **General.**—Relaying rails on curves, and repairing flood damages.

**GREAT NORTHERN LINES.**

**Port Augusta.**—Renewal of wagon turntable. **Pichi Richi.**—Relaying curves with 50lb. rails. **Hergott.**—Repairing the bore. **General.**—Fixing bracket plates on curves and repairing flood damages.

**SOUTH-EASTERN LINES.**

**Naracoorte.**—Repairing reservoir. **General.**—Repairing damage by floods.

**PROPOSED EXPENDITURE FOR ENSUING YEAR.****GENERAL.**

The principal repairs and renewals other than ordinary which will have to be done are—

**PORT AND NORTH LINES.**

Relaying line in St. Vincent-street, Port Adelaide. Relaying with 61lb. steel rails  $1\frac{1}{4}$  miles District 2, ten chain curves Kapunda Branch, and main line and passenger sidings in station yards between Roseworthy and Yarcowie; introduction of Winter block instruments, replacing worn out ballast and broken sleepers on line generally, rebuilding walls to bridges and culverts between  $32\frac{1}{2}$  and  $104\frac{1}{2}$  miles, and flattening sharp curves.

**SOUTHERN LINES.**

Continuing, strengthening, and relaying line between Strathalbyn and Goolwa, including deviation of line at Watson's Gap Bridge.

**HAMLEY, WAKEFIELD, WALLAROO, AND SNOWTOWN LINES.**

Relaying with 50lb. steel rails from 81 miles 54 chains to 82 miles 54 chains, and renewing fencing between 86 miles and 92 miles, Baiaklava and Blyth line.

**PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES.**

Relaying with 50lb. steel rails line between Crystal Brook and Warnertown, and repairs to line damaged by floods.

**GREAT NORTHERN LINES.**

Continuing relaying of curves, &c., with 50lb. steel rails, Pichi Richi Pass.

COMPARATIVE

## COMPARATIVE STATEMENT FOR FOUR YEARS.

The following is a summary of the results of maintenance on each system of lines in comparison with those of the last three years:—

Name of System and Gauge.	Year.	Miles of Single Line.	Miles of Sidings.	Ordinary and Current Repairs.		Extraordinary Repairs and Renewals.		Average Number of Men Employed per Mile, including sidings.					
				Cost per Mile of Single Line, Sidings included.	Cost per Mile of Single Line, Sidings not included.	Cost per Mile of Single Line, Sidings included.	Cost per Mile of Single Line, Sidings not included.	Superintendence.	Artisans.	Gangers.	Packers.	Laborers.	Total.
5ft. 3in.		m. ch.	m. ch.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
Port and North ..	1888	239 3	56 40	91 2 5	112 13 1	5 0 1	6 3 8	·04	·03	·16	·38	·03	·64
	1889	239 4	60 9	93 3 8	116 12 4	29 8 4	36 16 2	·03	·01	·15	·38	·02	·59
	1890	241 40	62 41	102 14 3	129 5 11	23 16 1	29 19 2	·03	·06	·14	·39	·16	·78
	1891	241 41	64 23	155 15 8	197 8 5	31 11 4	39 19 5	·04	·07	·11	·42	·37	1·01
Southern .....	1888	253 8	20 31	74 16 10	80 17 5	1 13 3	1 15 11	·03	·02	·15	·42	—	·62
	1889	252 52	20 69	76 5 8	82 11 7	3 6 4	3 11 10	·03	·03	·15	·39	·01	·61
	1890	252 54	22 50	75 11 9	82 7 1	25 7 3	27 12 7	·03	·03	·15	·37	·01	·59
	1891	252 52	22 50	80 1 9	87 5 2	11 14 0	12 14 9	·08	·04	·15	·38	·01	·61
3ft. 6in.													
Hamley, Wakefield Wallaroo, and Snowtown....	1888	138 40	15 32	56 5 3	62 10 3	6 13 5	7 8 3	·03	·01	·13	·23	·05	·45
	1889	137 48	16 34	50 9 11	56 10 6	19 5 7	21 11 6	·03	·01	·12	·20	·04	·40
	1890	137 47	16 39	59 11 11	66 14 7	16 8 8	18 8 2	·03	·01	·13	·28	·02	·47
	1891	137 47	16 35	61 9 4	68 16 4	3 16 4	4 5 5	·03	·01	·11	·25	·04	·44
Port Pirie, Terowie, Quorn, & Cock- burn .....	1888	320 69	22 71	60 6 10	64 18 4	1 6 2	1 8 2	·02	·01	·15	·31	·01	·50
	1889	319 25	26 28	57 18 7	62 14 2	14 15 2	15 19 7	·02	·01	·14	·27	·01	·45
	1890	319 24	27 10	64 1 0	69 9 11	12 14 4	13 15 11	·03	·01	·15	·28	·02	·49
	1891	319 24	27 17	76 7 5	82 17 7	5 12 9	6 2 4	·03	·02	·16	·28	·04	·53
Great Northern ..	1888	312 11	22 38	59 17 7	64 12 4	3 18 1	4 4 1	·02	·02	·12	·23	·08	·47
	1889	356 26	25 57	52 1 4	56 0 0	27 13 0	29 14 9	·02	·01	·12	·16	·08	·39
	1890	423 44	28 65	57 3 9	61 4 1	9 10 5	10 3 10	·02	·01	·12	·23	·04	·42
	1891	423 44	28 77	59 2 11	63 2 10	8 14 11	9 6 10	·02	·01	·13	·25	—	·41
South-Eastern ..	1888	152 10	12 43	56 15 6	61 9 1	0 15 6	0 16 10	·03	·01	·12	·27	—	·43
	1889	215 58	13 42	53 0 8	56 7 1	1 1 5	1 2 9	·03	·01	·12	·27	—	·43
	1890	215 47	13 53	53 17 1	57 5 4	3 0 0	3 3 10	·03	·02	·13	·25	—	·43
	1891	215 47	13 46	55 8 3	58 18 0	3 7 5	3 11 7	·03	·01	·13	·27	—	·44
Palmerston and Pine Creek....	1890	146 8	7 60	83 11 6	87 18 0	0 10 8	0 11 3	·02	·02	·11	·66	—	·81
	1891	146 8	7 59	51 14 10	54 9 9	4 5 5	4 9 9	·02	·01	·11	·46	—	·60

## THE COST OF MAINTENANCE.

The cost of ordinary and extraordinary maintenance per mile of line and sidings has been considerably less this year than last on the Southern and Hamley, Wakefield, and Wallaroo lines, and slightly greater on the Great Northern and South-Eastern lines. On the Port Pirie and Cockburn line the increase has been about 6½ per cent., but on the Port and North line it has been nearly 50 per cent. The cost of ordinary maintenance has also varied in the same way, but the increased amount shown for this on the Port and North line is chiefly for lifting, re-sleeper, and ballasting the line, to fit it for high speeds, and it is a question whether this should not have been charged to extraordinary repairs. The increase on the Great Northern line is accounted for by the much higher wages the men are paid in the Far North. The cost of maintenance of the Palmerston and Pine Creek line has been very largely reduced, as it has been found practicable to reduce the number of Chinamen employed by more than one-quarter. The total cost of maintenance for the year, including the Palmerston and Pine Creek line, but exclusive of the horse-power lines, has been £173,841 4s. 5d. Details of the foregoing works of construction, extraordinary repairs, and renewals, and ordinary and current repairs are given in appendices A, B, and C.

RAILWAY

## RAILWAY SURVEYS.

## NEW AND PROPOSED LINES.

## EXAMINATIONS.

**Leigh's Creek to Innamincka**—3ft. 6in. gauge.—An examination of the country has been made from Leigh's Creek to Montecollina, a distance of about 123 miles, with the view of selecting the best route for a railway from Leigh's Creek to Innamincka. Between Montecollina and Innamincka the line previously examined from Farina to the latter place was adopted for the purpose of estimate.

**Monarto to Sedan**.—An examination of the country has been made between Monarto and Sedan, a distance of 43 miles, to decide upon the practicability of constructing either a railway on the 5ft. 3in. gauge, or a light tramway.

**Bruce or Hammond to Wilmington**—3ft. 6in. gauge.—An examination has been made for a railway to connect Wilmington with the existing line either at Bruce or Hammond, the distances being respectively 15 miles and 15½ miles.

## PRELIMINARY SURVEYS.

**Angle Pole to Macdonnell Ranges**—3ft. 6in. gauge.—The preliminary survey has been completed from the township of Stuart, a distance of 292 miles from Angle Pole, or about 983 miles from Adelaide, through the Macdonnell Ranges to Burt Creek at 1,021 miles from Adelaide.

**Blyth to Crystal Brook, with Branch Line to Snowtown**—3ft. 6in. gauge.—A preliminary survey has been made for a railway, 40¼ miles in length, from Blyth to Crystal Brook, with a branch line, 15 miles in length, to Snowtown from near Red Hill.

**Semaphore to Largs Bay**—5ft. 3in. gauge.—A preliminary survey has been made for a railway 1 mile 5 chains in length, from the Semaphore to Largs Bay, along the esplanade.

## PERMANENT SURVEY.

**Wallaroo and Moonta Railway**—3ft. 6in. gauge.—A permanent survey has been made for converting the Wallaroo and Moonta horse-power line into a locomotive line, the distance being 10 miles 72 chains.

## EXISTING LINES.

## PORT AND NORTH LINES.

**Relaying Line St. Vincent-street, Port Adelaide**—5ft. 3in. gauge.—A survey has been made for the purpose of relaying the line through St. Vincent-street, Port Adelaide.

**Relaying Line Gawler to Roseworthy**—5ft. 3in. gauge.—A survey has been made for relaying a portion of the line between Gawler and Roseworthy.

**Improvement of Curves, North Line**.—Surveys have been made to determine the cost of alterations to curves between Adelaide and Terowie, to allow of a speed of 50 miles an hour.

**Additional Reservoir at Terowie**—A survey has been made for an additional reservoir to increase the present water supply at Terowie.

## SOUTHERN LINES.

**Murray Bridge**.—Levels have been taken on the piers of the eastern approach to the Murray Bridge at short intervals, in order to ascertain the extent of subsidence.

## WESTERN LINES.

**Mine Sidings at Moonta**.—A survey has been made of the sidings at the Moonta and Hamley mines; also of the existing railway connecting Wallaroo and Moonta.

## PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES.

**Additional Water Supply at Petersburg**.—Trial surveys have been made for an additional reservoir for increasing the present water supply at Petersburg.

**Station Yards**.—A survey has been made of the Mannahill station yard.

**Improvement of Curves, Port Pirie Line**.—Surveys are in progress for determining the cost of alterations to curves between Petersburg and Port Pirie, to allow of a speed of 30 miles an hour.

## WAY AND WORKS SHOPS, GLANVILLE.

*Under Superintendence of Resident Engineer, Port and North Lines.*

The average number of men employed during the year was 175·15 (*vide* table F page 136), and the value of work executed has been as follows:—

Undertaking.	Amount.		
	£	s.	d.
Railways—Construction, all lines .....	2,344	7	4
Maintenance, all lines .....	11,927	3	1
Stores Department .....	11,175	12	4
Dredging fleet, &c.—Repairs .....	3,550	0	9
Marine Board .....	884	0	6
Defences—Military .....	318	11	3
Naval .....	106	10	8
Public Buildings Department .....	223	4	10
Customs Department .....	27	2	2
Woods and Forests Department .....	47	17	7
Jetties and Bridges, Maintenance of .....	206	14	6
Reimbursements .....	709	8	6
Gaols Department .....	0	17	9
Miscellaneous .....	106	5	3
Total .....	£31,677	16	3

The Railway Commissioners, Adelaide.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

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## ENGINEER-IN-CHIEF'S DEPARTMENT.

No. 1.—RETURN of CONTRACTS let during the YEAR ending JUNE 30th, 1891.

Work.	Item.	Contractor.	Amount.		
			£	s.	d.
Adelaide Sewers .....	Trenches for sewers between Kent-terrace and Sydenham-road	J. Ashworth & Co.	1,449	13	8
Beetaloo Waterworks .....	Stoneware drainpipes	G. Marks	453	17	4
	Reticulating Moonta township	W. H. Gray	1,058	2	11
	Reticulating Wallaroo township	M. C. Davies	837	3	8
	Reticulating Kadina township	M. C. Davies	534	0	4
	6in. main from sec. No. 27, Wokurna, to sec. No. 136, Ninnes	W. Pett & Son	2,470	5	10
	Maintenance cottage, Cockey's Crossing	Wm. F. Coles	220	11	0
	Maintenance cottage, Wokurna	J. Leyson & Co.	440	0	0
	5in. main, hundred of Kulpara	W. H. Gray	794	1	9
	3in. main, Wallaroo to Moonta	Jno. Donnell	1,367	9	6
	Officers' quarters, Wokurna	W. E. Dennis	221	15	9
Deepening, &c. ....	Electric lighting plant on Dredger No. 8	W. F. Gray & Co.	398	17	6
Development of the Interior .....	Reservoir, &c., Wadnamanga	Hogan & Nash	555	6	7
	Drain crossing, &c., Cockburn	Hogan & Nash	80	14	10
	Lobethal reservoir	F. J. Lewis	1,578	9	9
	Boring with hand tools between Beda and Ironstone Lagoon	Murray & Ryan	1,470	0	0
	Tank at Waukaranga	W. Pett & Son	1,210	0	0
	Reservoir, hundred Booleroo	J. McKenzie	423	16	9
	Asphalting parade ground, Largs Fort	Wilke & Schwerkolt	173	10	8
	Ironwork for Point Charles lighthouse	G. E. Fulton & Co., Ltd.	1,828	11	8
	Reconstructing portion of seawall, Robe	F. W. Rackham, jun.	407	15	5
	Extending T head, &c., of Port Broughton jetty	W. H. Gray	241	14	1
Waterworks .....	1,425 tons 5in. cast-iron pipes	G. E. Fulton & Co., Ltd.	13,049	8	9
	3in. and 6in. cast-iron pipes	G. E. Fulton & Co., Ltd.	2,701	9	3
	2in., 3in., and 5in. stop valves	C. A. Smith & Co.	369	0	0
	Six 4in. stop-back valves	G. E. Fulton & Co., Ltd.	13	10	0
	2in. cast-iron pipes	G. E. Fulton & Co., Ltd.	2,800	17	6
	3in. and 6in. cast-iron pipes	G. E. Fulton & Co., Ltd.	3,199	12	6
	Additions to maintenance cottages	R. Honey	1,050	0	0
	Loco. foreman's residence, &c., Naracoorte	J. Sedunary	1,190	1	2
	Roof over passenger platform, Wolseley	G. Cruikshank	228	14	0
	Stationmaster's residence, &c., Hammond	Moran Bros.	553	17	0
Great Northern Railway .....	Painting, &c., to station buildings	J. Flemming	221	14	0
	Stationmaster's residence, &c., Dawson-road	J. Chapman & Co.	736	9	0
	Reservoir, Yunta	W. Pett & Son	3,254	1	10
	Reservoir, Olary	M. Minihan	3,156	9	2
	Reservoir, Paratoo	Jesser & McKenzie	3,245	17	11
	Reservoir, Mannahill	Baxter & Saddler	3,972	2	3
	Reservoir, Mingary	Baxter & Saddler	3,484	6	5
	Post, telegraph, and railway booking office, Kilkenny	J. Sedunary	161	14	0
	Offices for Locomotive Engineer, Islington	E. James & Co.	5,766	6	0
	Maintenance cottages, Wasleys	Taylor & Forgie	304	8	6
Port and North Lines .....	Maintenance cottages, Dry Creek	Cassidy & Rogers	509	10	11
	Carting and spreading silt in stores yard, Port Adelaide	J. T. Carson	219	10	10
	Electric lighting plant for weeding machine	E. M. Grant	617	0	0
	Barracks, Terowie	B. H. & A. R. Tuck	1,560	4	3
	Alterations and additions, Hamley Bridge	E. James & Co.	1,320	0	0
	Steel switches for 41lb. rails	Gray Bros.	819	19	6
	Barbed wire and droppers	G. Wills & Co.	3,829	6	5
	Staples for barbed wire	Crooks & Brooker	114	10	0
	Wire, wire netting, and staples	F. H. Snow	10,765	8	8
	Ground levers	Forwood, Down, & Co.	476	14	6
S.A. Railways (Stores Account) ..	Dogspikes for 50lb. and 61lb. rails	Jno. Bennett	1,350	15	0
	Steel droppers and wedges for fencing	G. Wills & Co.	956	7	8
	Gates, warning boards, &c.	J. Wishart & Son	2,278	11	10
	61lb. steel rails and fishplates	G. Wills & Co.	9,622	17	6
	50lb. steel rails and fishplates	G. Wills & Co.	9,521	3	5
	7,000 karri sleepers, 9ft. x 9in. x 4½in.	M. C. Davies	1,580	6	3
	43,000 jarrah sleepers, 8ft. 6in. x 10in. x 5in.	J. Hutchison	11,645	16	8
	6,000 redgum sleepers—5,000, 8ft. 6in. x 10in. x 5in., and 1,000, 9ft. x 9in. x 4½in.	G. Shepherdson	1,587	10	0
	2,000 redgum sleepers, 8ft. 6in. x 10in. x 5in.	J. Crossman	575	0	0
	1,700 jarrah sleepers, 8ft. 6in. x 8in. x 6in.	H. J. Yelverton	417	18	4
Southern Lines .....	200 spirit levels	A. W. Dobbie & Co.	28	6	8
	Turntable pit, Port Victor	R. C. Trenouth	128	7	11
	Fencing between 90 miles 39 chains and 101 miles	Head & Geraghty	387	13	0
	Fencing between 101 miles and 122 miles	C. Heineslater	611	0	7
	Fencing between 122 miles and 132 miles	T. Yates	504	1	4
	Fencing between 132 miles and 153 miles	Robinson & Smyth	840	1	5
	Maintenance cottages, Halbury and 82½ miles	G. Baker	979	0	0
	Goods shed, Paskeville	Schneemilch & Thomas	110	0	0
	Painting and repairs to buildings, &c.	J. Sedunary	339	7	7
	Kitchen to stationmaster's residence, Balaklava	A. Knowles	99	11	0
Western Lines .....					

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## No. 2.—Cost of RAILWAY SURVEYS for New and Proposed Lines for Year ending June 30th, 1891.

Items.	Debit Order.	Amount.	Total.	Grand Total.
	No.	£ s. d.	£ s. d.	£ s. d.
Angle Pole to Macdonnell Ranges—Preliminary survey.....	4822	**905 8 0		
“ “ Supervision of preliminary survey .....	4951	**44 13 9	950 1 9	
Blyth and Gladstone and Snowtown and Angle Grove—Preparation of book of reference .....	6141	80 13 6		
Blyth to Gladstone—Preparation of estimate .....	4604	7 1 0	87 14 6	
Blyth to Crystal Brook—Preliminary survey .....	6608	204 5 10		
“ “ Superintendence of preliminary survey .....	6632	14 14 4	219 0 2	
Carrieton to Mannahill—Expenses in connection with preliminary survey .....	6180	—	0 13 5	
Eudunda to Cockburn—Flying survey in direction of Broken Hill .....	5231	—	2 1 6	
Gawler to Angaston—Examination of country for Angaston Railway Commission .....	5544	—	0 7 0	
Leigh's Creek to Queensland Border—Survey and examination of country .....	6053	—	**243 15 3	
Monarto to Sedan—Examination of country for railway .....	6069	—	66 2 3	
Port Germein Railway—Examination of country re starting Port Germein railway from Port Pirie .....	5221	—	0 11 0	
Walleroo and Moonta Line—Preparation of book of reference....	6096	—	8 18 5	
Wilmington to Bruce or Hammond—Examination of country for tramline or railway .....	6268	—	25 5 0	
General Expenses—Supervision and sundry expenses..... {	5948	**252 9 10		
	4488A	167 0 0	420 9 10	2,024 4 1
CREDITS—				
Angle Pole to Macdonnell Ranges—Preliminary survey.. .....	4822	102 12 4		
“ “ Supervision of preliminary survey .....	4951	30 11 9		
Leigh's Creek to Queensland Border—Survey and examination of country .....	6053	17 13 11		
General Expenses—Supervision and sundry expenses.....	5948	12 15 10	—	163 13 10
				£1,860 6 3

\*\* Credits.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## No. 3.—Cost of PRELIMINARY SURVEYS, &amp;c., for Various Works for the Year ending June 30th, 1891.

Items.	D.O.	Amount.	Total.
		£ s. d.	£ s. d.
Electric lighting plant for all railways—Plant, &c., for.....	pt. 5827, 6042	9 3 4	
Heavier permanent way, 5ft. 3in. gauge—Plan and estimate for .....	pt. 5827	57 18 6	
New station buildings, Adelaide—Plan, &c., for .....	4451	68 13 8	
Proposed signals, various stations—Drawings of .....	5539, & pt. 5827	21 4 5	
Port and Semaphore railway—Proposed bridge across Port river, Estimate for .....	pt. 5827	2 18 1	
Railway bridge, Gawler, South Para river—Sketch of .....	pt. 5827	20 16 2	
Steel sleepers, 3ft. 6in. gauge—Plan and estimate for .....	pt. 5827	27 7 6	208 1 8

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## No. 4.—RETURN of MISCELLANEOUS ARTICLES IMPORTED by the

Date.	Vessel.	Purchased from.	Description.	Tonnage.	Cost.	
					Per Ton.	Each.
1890.				Tns. c q. lb.	\$ s. d.	\$ s. d.
April 11	Collingrove	Waterlow & Sons, Limited	ticket-counting machine	0 3 1 0	—	—
" 9	"	John Baker & Co.	305 wheels N.G.	82 4 2 1	—	4 5 6
" 26	Commonwealth	Harrison & Camm	70	14 6 1 0	—	2 18 6
" 29	Lamorna	Adams & Co.	sunlight oil	9,500 gallons	—	1/4 per gal.
" 29	"	Allen, Everett, & Sons	450 red-metal tubes	5 2 1 13	—	0 18 0
" 29	"	Kitson & Co.	33 iron tube plates	8 1 1 15	48 8 8	—
" 26	"	"	2 copper fireboxes and 2	515ft.	—	—
" 26	"	Allen, Everett, & Sons	smokebox tube plates	—	—	0 12 9
" 26	"	Vickers, Sons, & Co.	500 seamless tubes	4 8 0 0	—	85 17 6
May 30	Ormuz	Gresham & Craven	3 C.S. crank axles	2 5 1 5	—	8 15 0
April 10	Jennie Parker	William Sellers & Co.	6 brass "1876" injectors	—	—	11 10 5
May 15	Scottish Wizard	Adams & Co.	sunlight oil	5,188 gallons	—	11d. per gal.
June 13	Cynissa	Kitson & Co.	6 iron tube plates	—	—	9 18 0
July 4	Eden Holm	McLean Bros. & Riggs, Limited	832 hand truck wheels	—	—	0 3 5
" 21	Barunga	Vickers, Sons, & Co., Limited	3 C.S. crank axles	2 5 0 24	—	96 12 6
" 20	"	John Bibby, Sons, & Co.	copper rod	8 3 2 16	63 0 0	—
" 20	"	"	85 copper tubes	0 12 2 0	—	0 14 0
" 20	"	"	16,000 elm keys	—	—	14/8 per 100
" 20	John Rennie	John Baker & Co.	191 N.G. wheels	38 19 1 11	—	4 5 6
July 4	Brenhilda	C. Cammell & Co.	50lb. rails	300 18 1 8	6 14 4	—
" 4	Beltana	Harrison & Camm	116lb. "	23 14 1 22	—	2 18 6
" 19	"	Dorman, Long, & Co.	iron	23 14 2 0	7 1 6	—
" 25	"	Vickers, Sons, & Co.	1 C.S. crank axle	0 14 1 23	—	—
" 15	"	Harrison & Camm	50 N.G. wheels	10 4 1 24	—	2 18 6
" 14	Duke of Abercorn	C. Cammell & Co.	50lb. rails	180 2 3 12	6 14 4	—
" 21	Morialta	"	52lb. "	10 12 2 16	—	2 18 6
Aug. 1	"	Farnley Iron Company	pig iron	5 0 0 0	6 8 6	—
" 1	"	Blaernarvon Company, Limited	"	5 0 0 0	8 12 6	—
" 1	"	Carriack & Brockbank	"	5 0 0 0	less 2 1/2 p.c.	—
July 14	Poseidon	Chas. Cammell & Co.	50lb. rails	480 2 3 12	6 14 4	—
" 21	Barossa	N. C. Szerelmey & Co.	80 gallons iron paint	0 11 2 26	—	5/2 per gal.
Aug. 26	"	Chas. J. W. Barwell	205 brass and copper tubes	1 10 1 20	—	0 11 7
" 20	"	Beyer, Peacock, & Co.	plate wheel lathe	—	—	—
" 12	"	Harrison & Camm	58 N.G. wheels	11 17 0 20	—	2 18 6
" 29	Gryfe	Vickers, Sons, & Co.	1 C.S. crank axle	0 7 2 0	—	—
Oct. 11	Red Gauntlet	C. Cammell & Co.	50lb. steel fishplates	39 7 0 6	9 6 6	—
" 11	"	"	50lb. rails	43 1 2 12	6 14 4	—
" 11	"	"	61lb. steel fishplates	49 7 2 0	9 2 9	—
" 11	"	"	61lb. rails	159 1 2 24	6 10 6	—
" 8	Karlruhe	H. W. Peabody & Co.	hand carriage parts	—	—	—
" 3	Echuca	Ibbetson Bros. & Co.	56 con. and spiral springs	0 7 3 10	—	0 4 0
" 2	Glenbervie	C. Tennant, Sons, & Co.	plate and angle iron, &c.	83 7 3 14	9 2 11	—
" 22	Barmen	Fried. Krupp	100 steel axles	16 18 2 12	—	2 11 0
" 28	Horsa	Chas. Cammell & Co.	61lb. steel rails	129 7 0 6	6 10 6	—
Nov. 1	Moresby	J. Metcalfe	steel shafting, &c.	18 2 0 12	26 11 4	—
Oct. 31	"	Patent Shaft and Axletree Company	plate and angle iron	25 1 2 25	11 3 6	—
" 20	St. Mildred	Chas. Cammell & Co.	61lb. steel rails, &c.	399 18 2 19	6 10 6	—
" 24	Clara	Fried. Krupp	48 W.I. disc wheels	11 7 3 4	—	4 18 9
Nov. 3	Otterspool	Chas. Cammell & Co.	61lb. steel rails	372 1 0 2	6 10 6	—
" 11	Carthage	Manchester Water Meter Company	103 dos. cylinder joints, } 85 doz. cylinder tops }	—	—	—
Oct. 28	Moresby	G. & R. Wills & Co.	gal. steel barbed wire	39 10 0 0	21 18 0	—
Nov. 25	Palawan	Fried. Krupp	253 steel axles	37 5 1 2	—	—
Oct. 8	Glencorse	Aug. Blumenthal	steel fencing wire	435 16 3 12	8 17 8	—
Nov. 22	Wynnatay	Harrison & Camm	16 B.G. wheels	4 13 2 24	—	4 0 0
" 21	Moresby	The Whitecross Company, Limited	wire netting	71 1/2 miles	—	\$19 pr. mile
" 26	Wynnatay	John Brown & Co., Limited	400 wagon coupling springs	15 6 0 0	—	0 8 9
Oct. 27	Glenbervie	G. & R. Wills & Co.	40,000 patent steel droppers	—	—	50/1 per 100
Nov. 10	Wynnatay	Patent Shaft and Axletree Company	channel and angle iron	1 10 0 8	12 15 0	—
" 29	"	G. & R. Wills & Co.	30,000 patent steel droppers	—	—	50/1 per 100
Dec. 5	Arcadia	Smith & Sons	brass pinion wire	18ft.	—	—
" 5	Warwickshire	Geo. Wills & Co.	porcupine barbed wire	30 10 0 0	21 18 0	—
Nov. 20	"	J. Metcalfe	steel shafting	9 4 1 0	17 7 4	—
Dec. 20	Armora	Geo. Wills & Co.	21,730 patent steel droppers	—	—	50/1 per 100
" 5	Gwalla	John Brown & Co.	500 wagon coupling springs	19 4 3 18	—	—
" 5	"	Bolckon, Vaughan, & Co.	steel angles	136 7 2 0	6 18 0	—
" 22	Warwickshire	The Whitecross Company, Limited	wire netting	57 1/2 miles	—	\$19 pr. mile
" 17	Port Adelaide	John Brown & Co.	600 wagon coupling springs	23 17 3 12	—	0 8 10
" 17	"	John Spencer & Sons	324 volute springs	2 18 1 1	—	0 3 0
Nov. 26	Gwalla	"	25 "	0 6 0 8	—	0 4 6
" 21	"	E. W. Carling & Co.	lighthouse oil	30 gallons	—	less 2 1/2 p.c. 1/2 per gal.
1891.						
Jan. 6	"	Geo. Wills & Co.	Braithwaite's loco. packing	0 10 0 0	—	—
1890.						
Dec. 16	Gulf of Venice	Stothert & Pitt, Limited	1 Wild's patent single chain	—	—	—
" 23	"	Jno. Spencer & Sons	1 C.S. top tumbler machine } and 2 pairs mitre wheels }	—	—	—
1891.						
Jan. 12	Lake Superior	Geo. Wills & Co.	320 ingots plastic metal	2 0 0 0	150 8 0	—
" 9	Meridian	Fried. Krupp	96 axles	13 3 0 10	—	2 4 4
" 9	"	"	44 W.I. double spoke wheels	13 2 3 8	—	5 14 2
" 3	Bothwell Castle	John Brown & Co.	200 wagon coupling springs	7 5 2 24	—	0 8 6
1890.						
Dec. 3	Port Phillip	P. & W. MacLellan	plate iron	69 15 0 16	7 10 0	—
1891.						
Jan. 28	Ormuz	Westinghouse Brake Company	brake fittings	—	—	—
" 2	Lake Superior	John Spencer & Sons	492 volute springs	4 8 2 4	—	0 3 0
" 2	"	"	200 wagon coupling springs	8 6 0 8	—	0 9 0
1890.						
Aug. 5	Pakeha	Turton Bros. & Matthews	12 spiral springs	—	—	0 7 4
1891.						
Feb. 29	Iron Duke	Geo. Wills & Co.	61lb. steel rails	400 2 3 16	5 19 11	—
Jan. 30	Craigieila	T. Metcalfe	88 lengths shafting	—	—	—
Feb. 17	Gulf of Martaban	Geo. Wills & Co.	250 wagon tyres, Monk- bridge Company	44 5 3 23	—	4 3 9
" 17	"	"	400 wagon tyres, Vickers, Son, & Co.	60 12 0 11	—	3 11 0
" 20	Sayre	Wm. Sellers Co.	6 brass injectors	—	—	11 10 11

## DEPARTMENT.

SOUTH AUSTRALIAN GOVERNMENT for the YEAR ending JUNE 30th, 1891.

Invoice Cost.	English Engineers' Charges and Inspecting.	Freight.	Shipping Charges.	Insurance.	Colonial Charges.	Total Cost.	Cost.		Arrived.
							Per Ton.	Each.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	1890.
35 8 6	—	0 2 1	0 0 6	0 2 6	7 16 0	43 9 7	—	43 9 7	July 24
1,303 17 6	43 15 0	93 8 3	6 2 4	11 16 5	21 17 7	1,480 17 1	—	4 17 1	" 24
204 15 0	16 12 6	21 9 5	1 1 0	2 18 4	3 9 1	250 5 4	—	3 11 6	" 24
453 15 4	—	92 0 1	21 10 6	6 12 10	125 6 0	904 4 9	—	1/11 per gal.	Aug. 6
406 1 1	9 17 11	8 3 10	1 6 2	3 6 2	2 13 2	431 8 4	—	0 19 2	Sept. 16
390 16 6	17 3 7	9 1 7	1 6 0	3 5 0	2 13 2	424 5 10	52 11 8	—	" 15
347 10 0	11 15 0	16 1 10	1 3 3	2 15 11	1 5 9	380 11 9	—	—	" 15
318 5 2	8 19 11	6 18 0	—	3 12 7	2 3 10	339 19 6	—	0 13 7	" 15
257 12 6	12 5 0	3 3 4	—	2 18 11	6 8 7	282 7 4	—	94 2 5	" 15
52 10 0	3 4 2	Included	in cost of	material	14 10 6	77 19 8	—	13 0 0	July 17
69 2 8	—	1 0 0	—	—	19 0 0	89 2 8	—	14 17 1	Aug. 11
236 9 9	—	53 5 0	7 19 6	3 3 1	83 3 3	384 0 7	—	1/5 per gal.	Oct. 5
59 8 0	2 11 0	1 9 2	0 12 6	0 11 3	1 17 5	68 9 4	—	11 1 7	Sept. 23
141 5 4	4 12 0	Included	in cost of	material	4 19 2	150 16 6	—	0 3 8	Aug. 18
289 17 6	9 4 7	—	—	—	93 5 0	392 7 1	—	190 15 8	Oct. 18
502 11 9	11 11 8	13 1 6	2 0 7	7 10 0	0 15 10	537 11 4	65 14 0	—	" 15
59 14 2	3 13 11	1 0 0	0 13 8	0 9 5	0 1 3	65 12 0	—	0 15 5	" 15
109 17 6	3 9 2	21 15 5	1 1 8	1 0 0	26 17 6	164 1 3	—	21/104 per 100	" 15
816 10 6	27 11 5	53 11 7	4 6 1	7 16 10	3 4 11	913 1 4	—	4 15 7	Nov. 8
2,017 16 6	72 6 9	—	—	—	—	2,090 13 3	6 19 0	—	" 17
339 6 0	27 11 0	32 12 3	2 14 10	3 6 8	1 19 6	407 10 3	—	3 10 3	" 6
181 19 8	11 14 8	28 18 10	1 12 3	2 0 0	2 1 2	228 6 7	8 17 6	—	" 6
92 2 6	3 12 11	1 3 6	—	1 16 8	2 2 10	100 18 5	—	100 18 5	" 6
146 5 0	10 8 4	14 1 2	1 9 2	2 18 1	0 17 0	165 18 9	—	3 6 4	" 6
1,209 19 2	30 6 10	—	—	—	—	1,340 6 0	6 17 8	—	" 17
152 2 0	10 16 7	14 12 5	1 19 5	3 0 1	0 17 8	162 19 2	—	3 10 4	Dec. 17
30 17 6	0 15 7	5 12 6	0 6 8	0 5 7	0 8 4	38 6 2	7 13 3	—	" 13
43 1 6	1 1 2	5 12 6	0 7 6	0 8 8	0 8 4	49 19 8	9 19 11	—	" 13
27 15 9	0 14 0	5 12 6	0 6 5	0 4 7	0 8 4	35 1 7	7 0 4	—	" 13
2,829 2 6	57 15 7	—	—	—	—	2,946 18 1	6 17 0	—	Nov. —
20 14 0	0 10 9	1 12 7	0 2 0	0 3 8	2 9 1	35 12 1	—	6/5 per gal.	" 12
118 10 8	6 13 1	4 9 10	0 13 3	0 19 6	0 1 8	181 7 10	—	0 12 10	" 12
610 0 0	20 19 1	27 7 4	3 12 3	4 17 6	2 17 7	669 13 9	—	669 13 9	" 12
169 13 0	12 1 6	16 7 0	1 14 0	2 7 2	0 19 9	203 2 5	—	3 10 1	" 12
54 5 0	2 9 10	0 12 0	0 10 0	0 10 3	17 2 4	75 9 5	—	75 9 5	1891. 8
366 19 4	8 19 1	Included	in cost of	material	—	375 18 5	9 11 1	—	Jan. 4
289 7 10	6 19 0	—	—	—	—	296 6 10	6 17 7	—	" 4
451 3 4	10 12 8	—	—	—	—	461 16 0	9 7 1	—	" 4
1,038 0 8	24 17 3	—	—	—	—	1,062 17 11	6 13 8	—	" 4
56 0 9	—	5 17 3	0 15 5	0 15 0	16 19 8	80 8 1	—	—	1890. 24
11 4 2	3 13 0	Included	in cost of	material	2 0 8	17 17 10	—	0 6 5	Dec. 4
763 15 0	23 1 2	—	—	—	—	785 16 2	9 8 5	—	1891. 14
235 0 0	17 0 5	—	—	—	70 0 0	342 0 5	—	3 8 5	Dec. 9
344 0 7	21 6 0	—	—	—	—	865 6 7	6 13 9	—	1891. 10
487 0 0	32 5 8	—	—	—	—	513 5 8	28 7 0	—	" 11
280 14 3	11 14 5	—	—	—	—	292 8 8	11 13 2	—	" 11
2,007 18 3	63 4 7	—	—	—	—	2,671 2 10	6 13 8	—	Jan. 6
236 18 3	16 14 6	—	—	—	65 3 9	318 16 11	—	6 12 10	Feb. 5
2,427 12 8	54 18 2	—	—	—	—	2,482 10 10	6 13 6	—	" 13
40 3 3	1 13 11	1 1 0	0 19 10	0 4 7	0 2 0	44 4 7	—	—	Jan. 8
685 1 0	21 19 2	Included	in cost of	material	—	837 0 2	23 9 2	—	Feb. 11
588 4 11	31 12 10	—	—	—	161 15 3	781 13 0	—	3 1 9	April 1
3,371 14 8	114 15 7	—	—	—	—	3,966 10 3	9 2 11	—	Jan. 23
64 0 0	2 1 3	4 14 6	—	0 12 6	0 7 9	71 16 0	—	4 9 9	Mar. 10
1,349 8 8	35 19 5	Included	in cost of	material	—	1,385 8 1	—	19/10/3 pr. mile	Feb. 11
175 0 0	9 6 5	15 6 0	2 12 11	1 14 0	1 5 6	205 4 0	—	0 10 3	Mar. 10
1,001 13 4	25 0 0	Included	in cost of	material	—	1,026 13 4	—	51/4 per 100	Jan. 14
23 18 2	0 12 0	1 18 0	—	0 4 6	0 2 6	26 15 2	17 15 11	—	Mar. 10
751 5 0	17 12 6	Included	in cost of	material	—	768 17 6	—	51/3 per 100	" 10
0 6 0	0 0 3	—	—	—	—	0 6 3	—	0 6 3	Feb. 16
667 19 0	16 15 11	—	—	—	—	664 14 11	22 9 0	—	Mar. 21
180 0 0	6 9 6	—	—	—	—	168 9 6	18 1 5	—	April 21
544 3 1	13 4 6	—	—	—	—	557 7 7	—	51/4 per 100	—
217 10 0	6 15 10	19 4 11	2 5 3	2 3 2	1 12 1	349 10 3	—	0 10 0	Mar. 16
940 19 9	34 10 1	126 7 6	9 15 8	9 13 6	11 7 3	1,142 13 9	8 7 7	—	" 16
1,098 19 6	24 4 11	—	—	—	—	1,123 4 5	—	19/8/6 per mile	" 21
265 0 0	9 4 8	29 17 5	4 2 9	1 13 1	1 19 9	312 2 8	—	0 10 5	Feb. 16
43 12 0	3 14 8	4 0 2	0 14 1	0 7 7	0 4 10	57 13 4	—	0 3 7	" 16
5 9 9	1 1 4	0 7 0	0 11 1	0 1 7	1 10 6	9 1 3	—	0 7 3	Mar. 16
2 7 9	—	0 8 0	0 4 11	0 0 9	0 7 6	3 3 11	—	2/1 per gal.	" 16
59 17 5	1 11 1	Included	in cost of	material	6 11 6	68 0 0	—	68 0 0	" 16
95 0 0	4 17 1	5 19 10	0 18 5	0 14 4	21 4 8	128 14 4	—	128 14 4	Feb. 26
93 2 3	7 18 4	4 4 6	0 16 4	0 12 5	20 14 8	127 8 6	—	127 8 6	" 26
300 16 1	7 7 10	Included	in cost of	material	32 2 0	340 5 11	170 3 0	—	May 18
212 9 11	9 4 8	—	—	—	57 0 0	278 14 7	—	2 18 1	June 15
251 1 10	14 10 4	—	—	—	70 10 0	336 2 2	—	7 13 9	" 15
85 0 0	2 2 6	10 10 4	1 5 8	0 12 6	0 12 2	100 3 2	—	0 10 0	Mar. 16
523 3 7	20 12 8	91 11 2	5 12 1	3 19 4	5 16 3	650 15 1	9 6 7	—	" 12
436 7 0	11 0 6	Included	in cost of	material	96 0 0	543 7 6	—	—	" 11
73 16 0	4 10 6	4 8 7	0 17 6	0 14 8	0 7 5	84 14 8	—	0 3 5	May 18
90 0 0	4 19 11	8 6 1	1 1 9	0 18 4	0 13 10	105 19 11	—	0 10 7	" 18
4 8 0	5 10 10	Included	in cost of	material	2 10 0	12 8 10	—	1 0 9	Jan. 10
2,399 4 0	58 19 3	—	—	—	—	2,453 3 3	6 2 7	—	June 15
156 0 0	10 12 9	—	—	—	—	168 12 9	—	168 12 9	May 26
1,068 0 0	36 14 11	—	—	—	—	1,104 14 11	—	4 8 8	April 27
1,430 0 0	42 11 7	—	—	—	—	1,462 11 7	—	3 13 2	" 27
89 5 6	—	—	—	—	—	89 5 6	—	11 11 0	June 15

No. 4.—RETURN of MISCELLANEOUS ARTICLES IMPORTED by the

Date.	Vessel.	Purchased from.	Description.	Tonnage.	Cost.	
					Per Ton.	Each.
1890.				Tns. c. q. lb.	£ s. d.	£ s. d.
March 4	Bankhall	Geo. Wills & Co. ....	200 C.S. wagon tyres, Monkbridge Company }	35 3 3 5	—	4 3 10
" 4	"	" .....	191 M.C.S. tyres	38 17 1 7	—	5 2 2
Feb. 21	Doune Castle	" .....	61lb. steel rails	450 7 1 11	5 19 11	—
Jan. 7	Brier Holme	Dorman, Long, & Co. ....	bar and angle iron	5 16 1 7	7 3 2	—
" 19	"	Monkbridge Iron and Steel Company.....	chain iron	78 12 2 7	19 0 0	—
" 6	"	John Brown & Co.....	724 wagon coupling springs	29 6 3 24	—	0 8 11
1890. Dec. 23	Ashmore	Shelton Iron, Steel, and Coal Company .....	channel and angle iron	89 9 3 22	7 14 9	—
1891. Jan. 7	Lake Superior	Chance Bros. & Co. ....	first-order holophotal re- volving light }	—	—	—
" 7	"	" .....	third-order fixed light	—	—	—
April 7	Tiverton	McLean Bros. & Rigg, Limited.....	233 wheel centres	—	—	2 4 7
" 4	Echuca	Geo. Wills & Co.....	200 C.S. tyres	12 6 1 17	—	2 18 0
March 11	Port Darwin	Ibbotson Bros. & Co.....	200 draw springs	23 14 0 20	—	1 16 1
April 7	Victoria	Thos. Bolton & Sons.....	copper plates	3 6 1 6	—	—
" 20	Angerton	McLean Bros. & Rigg, Limited.....	2 wall engines	—	—	282 0 7
" 30	Dinderah	Fried. Krupp .....	200 Martin axles	—	—	2 12 6
March 31	Erlangen	" .....	250 "	—	—	3 3 0
Feb. 24	Wilcannia	The Whitecross Company, Limited.....	wire netting	210 3 3 miles	—	13/11/3 pr.m
" 24	"	" .....	"	81 2 2 miles	—	£19 permile
" 24	"	" .....	galvanized steel staples	1 17 0 0	16 5 8	—
" 21	Doune Castle	Geo. Wills & Co.....	61lb. fishplates	69 2 2 5	8 19 9	—
" 27	Carl	" .....	50lb. steel rails	199 3 2 4	5 19 7	—
" 27	Northern Monarch	" .....	"	280 6 1 26	5 19 6	—
" 27	Star of Russia	" .....	"	400 1 2 14	5 19 6	—
" 27	Northern Monarch	" .....	"	70 1 3 4	5 19 6	—
" 24	Auguste	" .....	"	140 1 1 18	5 19 7	—
Jan. 26	Aeolus	" .....	"	325 2 1 19	5 19 7	—

THOS. COLEBATCH, Chief Storekeeper.

SOUTH AUSTRALIAN GOVERNMENT for the YEAR ending JUNE 30th, 1891—continued.

Invoice Cost.	English Engineers' Charges and Inspecting.	Freight.	Shipping Charges.	Insurance.	Colonial Charges.	Total Cost.	Cost.		Arrived.
							Per Ton.	Each.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	1891.
838 0 0	22 4 7	"	"	"	—	860 4 7	—	4 6 0	June 25
976 0 0	28 10 8	"	"	"	—	1,004 10 8	—	5 5 2	" 25
2,700 6 8	56 11 10	"	"	"	—	2,756 18 6	6 2 5	—	" 15
41 12 9	3 11 0	5 16 4	0 12 10	0 8 2	0 9 8	52 10 9	9 0 8	—	May 28
1,493 18 8	40 2 6	78 12 7	6 7 11	14 3 9	6 11 1	1,639 16 6	20 17 1	—	" 28
332 6 0	8 1 2	29 6 11	1 17 4	3 1 5	2 8 11	367 1 9	—	0 10 2	" 28
692 9 10	21 13 9	89 9 11	7 1 8	6 19 11	7 2 2	824 17 3	9 4 4	—	June 13
3,553 0 0	95 5 4	61 15 3	8 2 5	35 7 3	6 3 7	3,759 13 10	—	3,759 13 10	May 18
1,370 0 0	34 5 0	23 16 4	3 2 7	13 12 9	2 7 7	1,447 4 3	—	1,447 4 3	" 18
519 9 11	21 11 4	Included	in cost of	material	130 0 0	671 1 3	—	2 17 7	" 27
580 0 0	22 10 2	"	"	"	—	602 10 2	—	3 0 3	June 8
360 14 6	13 7 10	"	"	"	—	374 2 4	—	1 17 5	May 30
218 16 0	8 13 2	9 2 10	1 5 6	1 4 1	0 7 6	239 9 1	72 4 7	—	" 30
764 1 3	27 18 4	Included	in cost of	material	—	791 19 7	—	395 19 9	" 18
527 10 8	19 6 3	"	"	"	145 1 3	691 18 2	—	3 9 2	" 23
787 10 0	42 1 10	"	"	"	155 16 0	885 7 10	—	3 2 10	" 29
2,858 2 11	64 6 0	"	"	"	—	2,922 8 11	—	13/17 1/4 pr. mile	Mar. 12
1,555 12 6	34 18 7	"	"	"	—	1,590 11 3	—	19/8/6 per mile	" 12
30 2 6	0 12 0	"	"	"	—	30 12 6	16 11 1	—	" 12
621 5 9	21 2 2	"	"	"	—	642 7 11	9 5 10	—	June 15
1,190 18 5	26 11 10	"	"	"	—	1,217 10 3	6 2 3	—	" 15
1,674 18 10	33 13 3	"	"	"	—	1,708 12 1	6 1 10	—	" 20
2,390 9 9	50 11 8	"	"	"	—	2,441 1 6	6 2 0	—	" 16
418 15 8	15 3 10	"	"	"	—	438 19 6	6 3 10	—	" 20
837 10 2	16 15 0	"	"	"	—	854 5 2	6 2 0	—	" 4
1,943 19 5	53 2 2	"	"	"	—	1,997 1 7	6 2 10	—	" 18

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## MIDLAND SYSTEM.

## PORT AND NORTH LINES.

**A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION DURING THE YEAR ENDING JUNE 30TH, 1891.**  
Gauge, 5ft. 3in.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	
CAPITAL ACCOUNT.				
District No. 1.				
Adelaide .....	Enlarging resideht engineer's office .....	pt. C. 2256	14 3 2	Completed
	Customs office .....	pt. 5725	27 7 1	Completed
	Extending office at goods shed .....	C. 2494	43 5 7	Completed
	Ticket cases and stands .....	C. 2485	38 1 0	Completed
	Erecting gas lamp .....	C. 2518	14 4 9	Completed
	Raising surface of parcels delivery stable yard .....	C. 2529	8 0 2	Completed
	Cabin for shunter .....	C. 2480	103 0 8	Completed
	Fencing at cattle yards .....	C. 2621	27 17 0	Completed
	Improved ventilation in signal cabin .....	C. 2618	4 13 1	Completed
	Room for check porters .....	C. 2803	162 6 5	Not completed
	Lavatory at running shed .....	C. 2798	18 3 10	Not completed
	Enlarging porters' rooms .....	C. 2767	58 8 4	Not completed
	Altering parallel bars to standard length .....	C. 1788	49 6 7	Not completed
South Line Junction..	Alterations to signal .....	5883	40 13 1	Completed
Bowden .....	Raising signal .....	C. 2654	15 13 3	Completed
	Additional lamp, Gibson-street crossing .....	C. 2739	3 9 4	Completed
	Crossing .....	6479	4 0 7	Not completed
	Urinal accommodation .....	C. 2804	18 12 2	Not completed
	Sidings to gas company's works .....	C. 2497	* 2,386 17 9	Completed
Croydon .....	W.C. accommodation for ladies' waiting room .....	C. 2766	98 5 4	Not completed
Kilkenny .....	Post, telegraph, and booking office .....	C. 2387	217 16 8	Completed
	Siding and turntable for G. E. Fulton & Co. ....	C. 2514	* 132 2 5	Completed
	Wicket gate for G. E. Fulton & Co. ....	C. 2573	* 3 0 0	Completed
Grand Junction Cros- sing .....	Alterations .....	C. 2760	133 3 1	Not completed
Port Adelaide .....	Offices for railway stores .....	pt. 5540	1,691 0 4	Completed
	Siding, stores depôt to Coalshed wharf .....	pt. 4905	448 10 8	Completed
	Stores depôt—			
	Kerosine store .....	5912	212 9 9	Completed
	Railway stores .....	pt. 5050	120 18 5	Completed
	Siding and weighbridge .....	6011	629 0 1	Completed
	Gas, telephone, cranes, alterations, &c. ....	6012	271 15 7	Not completed
	Battens to louvres of store .....	5999	60 0 1	Completed
	Completion of fencing .....	6015	318 4 4	Completed
	Sidings .....	pt. 5045	194 4 4	Completed
	Closets, urinals, stable, feedhouse, &c. ....	6013	383 17 4	Not completed
	Raising five acres of land 6in. ....	6014	540 5 9	Completed
	Removal of water conservation store .....	6016	223 1 0	Completed
	Closets and urinals for goods-shed employes .....	C. 2698	51 9 9	Completed
	Bray lamp in station yard .....	C. 2756	10 19 6	Completed
	Siding for A.S.S. Co., Commercial wharf .....	C. 2784	* 304 14 6	Completed
	Siding for Adelaide Milling Co., across Mundy-st..	pt. C. 2229	* 1 0 6	Completed
Glanville .....	Reclaiming land near Hawker's Creek .....	5557	5 5 0	Completed
	Way and works shops—			
	Roof over weeding machine .....	C. 2656	39 9 5	Completed
	Electric lighting plant for weeding machine .....	C. 2680	112 9 6	Not completed
	Electric communication in trains .....	C. 2720	127 2 0	Completed
	Urinal accommodation in yard .....	C. 2860	9 7 7	Not completed
	Bathroom in house occupied by Captain Inglis .....	C. 2710	2 9 5	Completed
North Adelaide ....	Doubling main line in station yard .....	pt. 4976	11 6 1	Completed
	New passenger waiting shed .....	pt. 5057	30 10 4	Completed
	Alterations to signals and interlocking .....	pt. 5058	5 3 0	Completed
Ovingham .....	Doubling main line in station yard .....	4977	2 12 6	Not completed
Islington .....	Doubling line in station yard .....	pt. 4978	2 5 6	Completed
	Alterations to buildings .....	pt. 5243	15 14 0	Completed
	Furniture for ladies' waiting-room .....	6441	7 4 2	Completed
	Laying on water service to new workshops .....	5143	497 15 10	Completed
	Removing loco. shops—			
	Sidings to erecting shops .....	5219	599 0 11	Not completed
	Erecting shops, &c. ....	pt. 5109	4,666 12 5	Completed
	Smithy forge, &c. ....	pt. 5345	1,962 3 5	Completed
	Offices for Loco. Engineer .....	5989	5,380 8 1	Not completed
	Laying water service to loco. offices .....	6067	32 4 4	Completed
	Water column .....	6422	68 10 3	Completed
	Sanding floors, fitting and erecting shops .....	6527	23 6 11	Completed
	600-gallon tank for engineman's cabin .....	C. 2797	3 17 6	Completed
	Sanitary arrangements at new workshops .....	6550	8 15 0	Not completed
	Pipe drain under railway .....	C. 2788	* 12 2 10	Not completed

\* Reimbursement.

PORT

## PORT AND NORTH LINES—continued.

## A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION, &amp;c. - continued.

Station or Mileage.	Description of Works.	D.O. No.	Total Cost. £ s. d.	State if Completed.
<b>CAPITAL ACCOUNT—continued.</b>				
<i>District No. 1.—continued.</i>				
Dry Creek .....	Maintenance cottage .....	C. 2406	481 15 5	Completed
Salisbury .....	Sidings to cemetery .....	pt. 5689	* 668 10 1	Completed
	Points from main line to cemetery sidings .....	6686	* 2 4 8	Completed
			23,862 9 5	
<b>CREDITS.</b>				
Bowden .....	Sidings to gas company's works .....	C. 2497	2,320 0 0	
Kilkenny .....	Siding and turntable for G. E. Fulton & Co. ....	C. 2514	132 2 5	
	Wicket gate for G. E. Fulton & Co. ....	C. 2573	3 0 0	
Port Adelaide .....	Siding for A.S.S. Co., Commercial wharf .....	C. 2784	304 14 6	
	Siding for Adelaide Milling Co., across Mundy-street..	C. 2229	1 0 6	
	Railway store—Asphalting floor .....	5703	15 15 10	
Islington .....	Pipe drain under railway .....	C. 2788	12 2 10	
Salisbury .....	Sidings to cemetery .....	5689	668 10 1	
	Points from main line to cemetery sidings .....	6686	2 4 8	
			3,459 10 10	
	<b>Total .....</b>	—	£20,402 18 7	
<i>District No. 2.</i>				
Gawler .....	Improving cottage No. 12 .....	C. 2415	52 4 5	Completed
Roseworthy .....	Signals and interlocking .....	6198 3761 6197	24 0 3	Not completed
Waileys .....	Maintenance cottage .....	C. 2406	327 19 4	Completed
	Thres 10ft. culverts to protect line .....	C. 2585	246 13 3	Completed
Hamley Bridge .....	Signals and interlocking .....	6195	6 11 8	Not completed
	Rearranging sidings .....	6194	213 14 7	Not completed
	Signals and interlocking .....	5762	3 4 1	Not completed
Riverton .....	New closet to maintenance cottage .....	C. 2633	7 0 2	Completed
	Additional signalling accommodation .....	pt. 5658	69 9 5	Completed
	Suction pipes at reservoirs .....	C. 2360	21 1 3	Not completed
	Additional rooms to maintenance cottages .....	C. 2400	84 13 7	Not completed
	Preliminary survey, plans, &c., re strengthening of North line, for greater speed .....	C. 2677	98 1 10	Not completed
	<b>Total .....</b>	—	£1,154 13 10	
<i>District No. 3.</i>				
Farrell's Flat .....	Closet accommodation to cottage 13T .....	C. 2706	7 11 8	Completed
Burra Bridge .....	Strengthening planking .....	C. 2722	113 3 11	Completed
Uooloo .....	Four closets for maintenance cottages .....	C. 2726	27 0 10	Completed
Terowie .....	Removing cattle yards .....	pt. 5481	** 39 3 9	Completed
	Loco. barracks for railway employes .....	6384	1,616 1 8	Completed
	Sleeper floor under transfer platform .....	C. 2608	29 0 6	Completed
	Survey for reservoir .....	C. 2825	43 12 5	Not completed
	Fencing portion of yard .....	C. 2833	24 0 11	Completed
	Cover over tank at refreshment-rooms .....	C. 2783	48 7 0	Completed
	Additional rooms to maintenance cottages .....	C. 2400	80 0 0	Not completed
	Suction pipes at reservoirs .....	C. 2360	29 0 0	Not completed
	New maintenance trolley .....	C. 2876	13 0 0	Completed
	Additional signalling accommodation .....	pt. 5658	69 9 5	Completed
	Preliminary surveys, plans, &c., re strengthening North line, for greater speed .....	C. 2677	98 1 10	Not completed
			2,237 13 11	
<b>CREDIT.</b>				
Terowie .....	Removing cattle yards .....	5481	170 17 3	
	<b>Total .....</b>	—	£2,066 16 8	
<i>District No. 4.</i>				
Kapunda .....	Purchase of thirty perches of land .....	C. 2763	93 9 11	Completed
Bagot's Well .....	Telephone communication between Bagot's Well, Kapunda and Eudunda .....	C. 2681	10 8 8	Completed
Eudunda .....	Metalling roadway in station yard .....	C. 2273	120 17 10	Completed
	Alterations, stationmaster's residence .....	C. 2447	83 7 4	Completed
	Additional rooms to maintenance cottages .....	C. 2400	80 0 0	Not completed
	Gate and metalled approach to wheat platform ..	C. 2629	42 7 4	Completed
	Cellar for district foreman .....	C. 2648	1 10 0	Completed
	Suction pipes at reservoir .....	C. 2360	9 0 0	Not completed
Deep Creek .....	Wheat loading platform .....	C. 2630	57 3 5	Completed

\*\* Credit.

• Reimbursement.

‡ Damaged by flood.



PORT AND NORTH LINES—continued.

A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION, &c.—continued.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	
CAPITAL ACCOUNT—continued.				
District No. 4—continued.				
Sutherlands .....	Purchase of siding .....	C. 2757	103 18 0	Not completed
Mount Mary .....	Suction pipe at reservoir .....	C. 2759	9 0 0	Not completed
Morgan .....	Metalling approaches to siding .....	C. 2360	92 0 2	Completed
	Goods shed and platform .....	C. 2636	68 19 8	Completed
	Total .....	C. 2372	£772 2 4	
	Aggregate total, £24,396 11s. 5d.	—		
Miscellaneous.				
Port .....	Decking Robinson bridge with hardwood blocks .....	5986	383 3 10	Completed
Largs Fort .....	Additional work .....	5954	306 17 10	Completed
Glenelg .....	Tar paving parade ground .....	6172	178 15 0	Completed
	Repairs to gunshed .....	pt. 5892	2 14 4	Completed
	Taking up line to fort .....	pt. 5558	0 16 6	Completed
			872 7 6	
CREDITS.				
H.M.C.S. Protector ..	Auxiliary boiler .....	4986	18 11 7	
Glenelg .....	Taking up line to fort .....	5558	60 6 9	
			78 18 4	
	Total .....	—	793 9 2	

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## ENGINEER-IN-CHIEF'S DEPARTMENT.

PORT AND NORTH LINES—*continued.***B**—DESCRIPTION OF EXTRAORDINARY WORKS OF REPAIRS AND RENEWALS FOR THE  
YEAR ENDING JUNE 30TH, 1891.

Gauge, 5ft. 3in.

Station or Mileage.	Description of Work.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
<b>MAINTENANCE AND RENEWAL ACCOUNT.</b>				
<i>District No. 1.</i>				
Adelaide .....	Replacing stump switches with standards .....	C. 2456	18 4 9	Completed
	† Repairing door of goods shed .....	C. 2678	10 4 3	Completed
	† Repairing signal .....	C. 2507	0 11 1	Completed
South Line Junctions.	† Fixing standard buffer stop .....	C. 2688	16 11 2	Completed
Near Gaol .....	† Repairing line .....	C. 2523	30 12 11	Completed
Bowden .....	† Repairing fence .....	C. 2911	* 1 0 0	Completed
Kilkenny .....	† Repairing fence .....	C. 2910	* 0 5 0	Completed
	† Repairing fence .....	C. 2867	* 0 10 0	Completed
	† Repairing fence .....	C. 2865	* 0 13 0	Completed
	† Repairing fence and gates .....	C. 2581	* 4 7 11	Completed
Woodville .....	Substituting kerosine for gasoline .....	C. 2652	7 7 11	Completed
	† Replacing interlocking gate .....	C. 2867	22 19 7	Not completed
Alborton .....	Removing signal cabin and erecting gates .....	C. 2792	14 6 0	Not completed
Port Adelaide .....	Relaying bridge rail sidings .....	pt. C. 2276	** 15 19 4	Completed
	Relaying between station and Jervois Bridge .....	C. 2584	195 5 10	Not completed
	Blinding yard with gravel .....	C. 2550	167 18 5	Completed
	Altering sidings .....	C. 2546	** 19 6 9	Completed
	Relaying bridge rail siding .....	C. 2807	84 11 1	Not completed
	Relaying line along St. Vincent-street .....	C. 2526	20 11 1	Not completed
	Renewing fence along station boundary .....	C. 2592	196 4 6	Completed
Jervois Bridge .....	† Repairing standard to handrail .....	C. 2664	* 4 14 11	Completed
	† Repairing handrail .....	C. 2691	* 3 18 8	Completed
Robinson Bridge ....	Repairing handrail .....	{ C. 2690 } C. 2472	9 1 3	
	Altering catch of turntable .....	C. 2778	28 5 5	
Semaphore .....	Renewing lamproom .....	C. 2554	18 15 3	Completed
North Adelaide .....	Taking up siding on park lands .....	C. 2713	** 40 17 10	Completed
	Closing cattle guards with brick arch .....	C. 2584	18 16 3	Completed
	† Repairing gate .....	C. 2586	* 5 0 0	Completed
	Galvanized iron fence, stationmaster's residence .....	C. 2801	43 0 6	Completed
Islington .....	Asphalting portion of running shed .....	C. 2786	62 2 4	Completed
Dry Creek .....	Replacing old lever with cheese knob .....	C. 2459	2 17 6	Completed
	Replacing old lever with cheese knob .....	C. 2785	1 17 9	Completed
	† Repairing buffer stop .....	C. 2909	1 3 5	Not completed
	† Repairing way .....	C. 2555	10 10 1	Completed
	† Repairing switches .....	C. 2607	* 0 12 0	Completed
	Removing cheese knob .....	—	* 1 9 11	Completed
Salisbury .....	Renewing ceilings and floors stationmaster's residence ..	C. 2771	38 14 4	Completed
	Replacing vertical levers with standards .....	C. 2525	6 14 0	Completed
Smithfield .....	Erecting new fence .....	pt. C. 2041	** 0 3 9	Completed
	Renewing main line fences .....	C. 2391	320 5 2	Not completed
	† Repairing switches .....	C. 2507	22 7 5	Completed
	Increasing durability of names on station lamps .....	C. 2770	9 12 0	Not completed
			1,508 10 4	
<b>CREDITS—</b>				
Adelaide .....	Re-erecting twenty-ton weighbridge .....	C. 2395	15 0 0	
Bowden .....	Repairing fence .....	C. 2911	1 0 0	
Kilkenny .....	Repairing fence .....	C. 2910	0 5 0	
	Repairing fence .....	C. 2865	0 12 0	
	Repairing fence .....	C. 2687	0 10 0	
	Repairing gate .....	C. 2581	4 7 11	
Jervois Bridge .....	Repairing standard .....	C. 2664	4 14 11	
	Repairing standard .....	C. 2691	3 18 8	
Robinson Bridge ....	Repairing handrail .....	{ C. 2690 } C. 2472	9 1 3	
Port Adelaide .....	Altering sidings .....	C. 2546	19 6 9	
	Relaying bridge rail sidings .....	C. 2276	91 9 0	
North Adelaide .....	Removing siding .....	C. 2713	89 15 0	
	Repairing gate .....	C. 2586	5 0 0	
Dry Creek .....	Removing cheese knobs .....	—	1 9 11	
	Repairing switches .....	C. 2607	0 12 0	
Smithfield .....	Erecting new fence .....	C. 2041	29 4 1	
			276 7 6	
Total .....			1,232 2 10	
<i>District No. 2.</i>				
Gawler .....	Repairing siding .....	C. 2583	* 12 8 8	Completed
	† Repairing fencing standard .....	C. 2532	* 0 15 0	Completed

\*\* Credits.

\* Reimbursement.

† Accident.

PORT

## PORT AND NORTH LINES—continued.

## B—DESCRIPTION OF EXTRAORDINARY WORKS &amp;c.—continued.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
MAINTENANCE AND RENEWAL ACCOUNT—continued.				
District No. 2—continued.				
Gawler .....	†Repairing door of running shed .....	C. 2606	7 19 8	Completed
	†Repairing roof of goods shed .....	C. 2832	21 11 9	Completed
	Repairs to maintenance cottage No. 12 .....	C. 2415	52 4 5	Completed
Roseworthy .....	†Repairing way .....	C. 2754	2 10 8	Completed
Roseworthy Bank ..	Relaying 2½ miles with 61lb. rails .....	C. 2220	3,164 19 5	Not completed
Roseworthy to Kapunda .....	Relaying 10 chains with 61lb. rails .....	C. 2707	223 6 5	Completed
Wasleys .....	Renewing outside goods platform .....	C. 2390	11 5 5	Completed
36½ miles to 37 miles .....	Relaying line with 61lb. rails .....	C. 2805	496 5 2	Completed
Stockport .....	Relaying sidings with 61lb. rails .....	C. 2809	0 6 3	Not completed
Stockport to Tarlee ..	Renewing fences .....	pt. C. 2040	* 0 8 1	Completed
Tarlee .....	Removing cross-over road .....	C. 2826	* 27 0 4	Completed
	†Repairing fence .....	C. 2753	* 0 17 6	Completed
	†Repairing cattle race .....	C. 2849	* 1 1 0	Completed
	Relaying sidings with 61lb. rails .....	C. 2809	0 6 3	Not completed
Riverton .....	New pattern closet pans and syphons .....	C. 2628	15 16 7	Completed
	Cleaning out reservoir .....	C. 2902	131 7 3	Completed
	†Burying cow .....	C. 2676	* 0 13 0	Completed
Saddleworth .....	†Repairing switches .....	C. 2737	4 0 2	Completed
	†Repairing signal ladder .....	C. 2507	0 7 6	Completed
	†Repairing line .....	pt. C. 1854	* 1 17 6	Completed
	†Repairing line .....	pt. C. 2312	19 2 10	Completed
	Renewing fences .....	C. 2391	1,803 13 5	Not completed
	Raising outer rails of curve to suit increased speed .....	C. 2866	724 10 5	Not completed
	Altering stopblocks .....	pt. C. 1800	* 0 6 8	Completed
	Repairing trollies .....	C. 2155	13 18 5	Completed
	Altering signal lamps to burn kerosine .....	pt. C. 2309	95 0 0	Completed
	†Repairing switches .....	C. 2507	24 14 6	
			6,868 14 3	
CREDITS—				
Gawler .....	Repairing fencing standard .....	C. 2532	0 15 0	
	Repairing siding .....	C. 2583	12 8 8	
Stockport to Tarlee ..	Renewing fence .....	C. 2040	29 10 0	
Tarlee .....	Removing cross-over road .....	C. 2826	40 8 9	
	Altering stopblocks .....	C. 1800	1 10 0	
	Repairing fence .....	C. 2753	0 17 6	
	Repairing line .....	C. 1854	2 4 0	
Riverton .....	Burying cow .....	C. 2676	0 13 0	
			88 6 11	
	Total .....	—	6,770 7 4	
District No. 3.				
Manoora .....	Relaying siding .....	C. 2592	199 14 5	Completed
	Cleaning out reservoir .....	C. 2903	43 17 3	Completed
Mintaro .....	Filling in cesspit and substituting earth pans .....	C. 1848	3 0 0	Completed
	†Repairing way .....	C. 2596	9 18 1	Completed
Farrell's Flat .....	600-gallon tank for stationmaster's residence .....	C. 2522	6 0 0	Completed
Burra .....	Replacing vertical lever with standard lever .....	C. 2625	12 2 11	Completed
Burra Bridge .....	Repairing bridge and making loose road .....	C. 2722	75 12 3	Completed
117 miles .....	†Repairing bridge .....	C. 2738	12 11 11	Completed
Terowie .....	Altering stopblocks .....	C. 2470	1 11 11	Completed
	†Repairing door of running shed .....	C. 2761	7 10 3	Completed
	†Repairs to lamp room .....	C. 2885	14 13 0	Completed
	†Repairing line .....	pt. C. 2313	64 8 5	Completed
	Altering signal lamps to burn kerosine .....	C. 2309	119 0 0	Completed
	†Replacing tricycle .....	C. 2580	* 2 7 6	Completed
	Raising outer rail of curves to suit increased speed .....	pt. C. 2866	724 10 5	Completed
	†Repairing switches .....	C. 2507	4 10 8	Completed
			1,301 9 0	
CREDIT—				
Terowie .....	Replacing tricycle .....	C. 2580	2 7 6	
	Total .....	—	1,299 1 6	
District No. 4.				
Freeling to Kapunda ..	Renewing fences .....	C. 2391	291 12 7	Not completed
Kapunda .....	†Repairing fence .....	C. 2735	* 0 5 0	Completed
Kapunda to 75 miles..	Strengthening fence .....	C. 2671	3 12 0	Not completed

\*\* Credits.

\* Reimbursement.

† Accident.

‡ Damaged by flood

PORT

PORT AND NORTH LINES—*continued.*B—DESCRIPTION OF EXTRAORDINARY WORKS, &c.—*continued.*

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	

MAINTENANCE AND RENEWAL ACCOUNT—*continued.**District No. 4—continued.*

Eudunda .....	†Repairing door of goods shed .....	C. 2507	0 10 0	Completed
	†Repairing gatepost .....	C. 2469	* 1 2 8	Completed
Sutherlands .....	†Repairing way .....	C. 2689	3 15 8	Completed
	†Repairing switches .....	C. 2507	2 7 0	Completed
Near Morgan .....	Destruction of vermin .....	C. 2817	8 6 9	Completed
	Altering signal lamps to burn kerosine .....	pt. C. 2309	41 15 9	Completed

353 7 5

## CREDITS—

Eudunda .....	Repairing gatepost .....	C. 2469	1 2 8	
Kapunda .....	Repairing fence .....	C. 2735	0 5 0	
			1 7 8	
	Total .....	—	351 19 9	

Aggregate total, £9,653 11s. 5d.

*Miscellaneous Expenditure.*

Adelaide .....	Altering ticket cases .....	C. 2486	16 19 3	Completed
Port Adelaide—				
Robinson Bridge.	New handle for key .....	6339	1 2 6	Completed
	Repairing broken rails .....	6278	2 3 10	Completed
	Sundry repairs .....	6458	23 17 0	Completed
North Arm ....	Repairs to embankment .....	pt. 6585	6 1 6	Completed
Large Bay .....	†Repairing switches .....	C. 2507	0 15 6	Completed
	Samples sets of rails and sleepers .....	6650	1 4 4	Not completed
Inlington .....	Erecting notice boards .....	C. 2613	4 2 9	Completed
Terowie .....	Additional lamps in transfer shed .....	C. 2847	2 11 7	Completed
	Trial lamp for transfer shed .....	C. 2627	1 4 4	Completed
	Total .....	—	60 2 7	

\*\* Credits.

\* Reimbursement.

† Accident.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## C—RETURN OF COST OF WORKS OF MAINTENANCE

MAINTENANCE AND

Gauge,

ORDINARY AND CURRENT REPAIRS.									
Mileage.	Sub-head.	Contract.	Labor.	Stores and Material.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
DISTRICT 1°.									
Main line—	General expenses—								
Single ..... 28m. 63c.	Engineering and supervision	—	770 6 4	56 13 8	—	—	—	827 0 0	9 7 9
Double ..... 10m. 17c.	Sick and recreation leave.....	—	167 9 11	—	—	—	—	167 9 11	1 18 0
	Way .....	20 0 0	4,665 2 4	1,111 4 0	234 15 2	—	—	6,211 1 6	70 0 0
	Works .....	—	1,488 1 1	579 1 5	—	—	—	2,067 2 6	23 13 10
	Buildings .....	453 16 10	1,600 6 7	319 11 9	—	—	—	2,373 15 2	26 18 10
Sidings ..... 39m. 00c.	Rolling-stock .....	—	96 11 3	30 14 11	—	—	—	129 6 2	1 9 4
Double switches, No. 17	Machinery, tools, &c.....	110 6 0	1,385 5 3	139 12 5	—	—	—	1,635 3 8	18 11 3
Single do. No. 476	Water, fuel, &c.....	—	28 13 7	20 18 4	—	—	—	49 11 11	0 11 3
	Gross total .....	584 2 10	10,403 16 4	2,257 16 6	234 15 2	—	—	13,480 10 10	153 0 3
	Reimbursements .....	—	—	443 15 2	—	—	—	443 15 2	5 0 9
	Net total .....	584 2 10	10,403 16 4	1,814 1 4	234 15 2	—	—	13,036 15 8	147 19 6
DISTRICT 2.									
Main line—	General expenses—								
Broad gauge 60m. 75c.	Engineering and supervision	—	770 6 4	56 13 8	—	—	—	827 0 0	11 10 1
Narrow " 0m. 26c.	Sick and recreation leave.....	—	143 6 3	—	—	—	—	143 6 3	1 19 10
	Way .....	—	6,363 11 7	4,777 11 1	324 12 5	—	—	11,365 15 1	158 2 8
	Works .....	—	972 12 2	189 14 10	—	—	—	1,162 7 0	16 3 5
Sidings ..... 61m. 21c.	Buildings .....	—	419 6 7	149 12 6	—	—	—	568 19 1	7 18 4
Double switches, No. 20	Rolling-stock .....	—	52 7 0	24 4 0	—	—	—	76 11 0	1 1 4
Single do. No. 129	Machinery, tools, &c.....	—	363 5 7	69 19 5	—	—	—	433 5 0	6 0 7
	Water, fuel, &c.....	—	28 13 7	5 11 0	—	—	—	29 4 7	0 8 1
	Gross total .....	—	9,008 9 1	5,273 6 6	324 12 5	—	—	14,606 8 0	203 4 4
	Reimbursements .....	—	—	426 9 3	—	—	—	426 9 3	5 18 8
	Net total .....	—	9,008 9 1	4,846 17 3	324 12 5	—	—	14,179 18 9	197 5 8
DISTRICT 3.									
Main line—	General expenses—								
Broad gauge 65m. 65c.	Engineering and supervision	—	770 6 4	56 13 8	—	—	—	827 0 0	10 16 8
Narrow " 0m. 36c.	Sick and recreation leave.....	—	149 0 9	—	—	—	—	149 0 9	1 19 0
	Way .....	—	6,982 11 7	5,423 9 3	304 9 6	—	—	12,710 10 4	106 9 6
	Works .....	—	587 9 8	72 7 4	—	—	—	659 17 0	8 12 10
Sidings ..... 66m. 21c.	Buildings .....	—	295 6 5	62 16 5	—	—	—	358 2 10	4 13 10
Double switches, No. 15	Rolling-stock .....	—	37 15 2	25 5 10	—	—	—	63 1 0	0 16 6
Single do. No. 104	Machinery, tools, &c.....	—	316 10 3	56 5 11	—	—	—	372 16 2	4 17 8
	Water, fuel, &c.....	—	27 3 5	3 18 7	—	—	—	31 2 0	0 6 2
	Gross total .....	—	9,166 3 7	5,700 17 0	304 9 6	—	—	15,171 10 1	198 14 2
	Reimbursements .....	—	—	137 8 1	—	—	—	137 8 1	1 16 0
	Net total .....	—	9,166 3 7	5,563 8 11	304 9 6	—	—	15,034 2 0	196 18 2
DISTRICT 4.									
Main line—	General expenses—								
Broad gauge 64m. 63c.	Engineering and supervision	—	555 12 5	56 13 4	—	—	—	612 5 9	8 16 3
Sidings ..... 4m. 63c.	Sick and recreation leave.....	—	81 9 0	—	—	—	—	81 9 0	1 3 5
Double switches, No. 4	Way .....	—	3,149 6 7	332 6 3	57 0 7	—	—	3,538 13 5	50 16 6
Single do. No. 53	Works .....	—	350 4 4	43 1 6	—	—	—	393 5 10	5 13 3
	Buildings .....	—	284 2 11	61 15 1	—	—	—	345 18 0	4 19 7
	Rolling-stock .....	—	65 11 8	24 0 5	—	—	—	89 12 1	1 5 9
	Machinery, tools, &c.....	—	279 10 4	42 11 0	—	—	—	321 1 4	4 12 8
	Water, fuel, &c.....	—	22 2 10	5 8 2	—	—	—	27 11 0	0 7 11
	Gross total .....	—	4,788 0 1	565 15 9	57 0 7	—	—	5,410 16 5	77 17 6
	Reimbursements .....	—	—	23 14 8	—	—	—	23 14 8	0 6 10
	Net total .....	—	4,778 0 1	542 1 1	57 0 7	—	—	5,387 1 9	77 10 8
SUM									
Main line—	General expenses—								
Broad gauge 220m. 25c.	Engineering and supervision	—	2,866 11 5	226 14 4	—	—	—	3,093 5 9	10 2 4
Narrow " 0m. 63c.	Sick and recreation leave.....	—	541 5 11	—	—	—	—	541 5 11	1 15 5
Double line. 10m. 17c.	Way .....	—	21,280 12 1	11,644 10 7	920 17 8	—	—	33,826 0 4	110 12 3
	Works .....	20 0 0	3,398 7 3	834 5 1	—	—	—	4,302 12 4	14 1 5
	Buildings .....	453 16 10	2,599 2 6	593 15 9	—	—	—	3,646 15 1	11 18 6
Sidings ..... 231m. 24c.	Rolling-stock .....	—	254 5 1	104 5 2	—	—	—	358 10 3	1 3 5
Double switches, No. 56	Machinery, tools, &c.....	110 6 0	2,344 11 5	208 8 9	—	—	—	2,763 6 2	9 0 9
Single do. No. 762	Water, fuel, &c.....	—	101 13 5	33 16 1	—	—	—	137 9 6	0 9 0
	Gross total .....	584 2 10	33,866 9 1	13,797 15 9	920 17 8	—	—	48,669 5 4	159 3 1
	Reimbursements .....	—	—	1,031 7 2	—	—	—	1,031 7 2	3 7 5
	Net total .....	584 2 10	33,866 9 1	12,766 8 7	920 17 8	—	—	47,637 18 2	153 15 8

NOTE.—The Aggregate Total shown in the Return is the *Actual* Expenditure incurred during the year. That shown on the Return furnished by the Adelaide, June 30th, 1891.

DEPARTMENT.  
LINES—continued.

ENGINEER-IN-CHIEF'S DEPARTMENT.

85

AND RENEWAL FOR YEAR ENDING JUNE 30TH, 1891.  
RENEWAL ACCOUNT.

5ft. 3in.

EXTRAORDINARY REPAIRS AND RENEWALS.									TOTALS.	
Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	AGGREGATE TOTAL.	Average Cost per Mile of Single Line, including Sidings.	Average Cost per Mile of Railway.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
—	—	—	—	—	—	—	—	827 0 0	9 7 9	21 4 1
—	—	—	—	—	—	—	—	167 9 11	1 18 0	4 5 10
—	497 16 1	189 0 3	—	—	—	686 16 4	7 15 11	6,897 17 10	78 5 11	176 17 5
—	349 17 9	277 19 2	—	—	—	627 16 11	7 2 7	2,714 19 5	36 16 5	69 12 4
—	84 12 0	122 4 8	—	—	—	206 16 8	2 6 11	2,540 11 10	29 5 9	66 3 5
—	—	—	—	—	—	—	—	129 6 2	1 9 4	3 6 4
—	35 6 9	16 9 4	—	—	—	51 16 1	0 11 9	1,686 19 9	19 3 0	43 5 1
—	—	—	—	—	—	—	—	49 11 11	0 11 3	1 5 5
—	967 12 7	605 13 5	—	—	—	1,573 6 0	17 17 2	15,033 16 10	170 17 5	385 19 11
—	—	341 3 2	—	—	—	341 3 2	3 17 5	784 18 4	8 18 2	20 2 6
—	967 12 7	264 10 3	—	—	—	1,232 2 10	13 19 9	14,268 18 6	161 19 3	365 17 5
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	87 0 0	11 10 1	13 10 0
—	—	—	—	—	—	—	—	143 6 3	1 19 10	2 6 9
—	1,249 9 5	3,586 6 3	—	—	—	4,835 15 8	67 5 8	16,301 10 9	225 8 4	264 9 3
—	601 16 0	1,265 9 11	—	—	—	1,867 5 11	25 19 7	3,029 12 11	42 3 0	49 9 1
—	90 16 2	19 8 8	—	—	—	110 4 10	1 10 8	679 8 11	9 9 0	11 1 9
—	13 11 7	0 6 10	—	—	—	13 18 5	0 3 10	90 9 5	1 5 2	1 9 6
—	100 7 6	15 0 0	—	—	—	115 7 6	1 12 1	548 12 6	7 12 8	8 19 1
—	48 9 9	82 17 6	—	—	—	131 7 3	1 16 7	160 11 10	2 4 8	2 12 5
—	2,104 10 5	4,969 9 2	—	—	—	7,073 19 7	98 8 5	21,680 7 7	301 12 9	353 17 10
—	—	303 12 3	—	—	—	303 12 3	4 4 6	730 1 6	10 3 2	11 18 4
—	2,104 10 5	4,665 16 11	—	—	—	6,770 7 4	94 3 11	20,950 6 1	291 9 7	341 19 6
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	827 0 0	10 16 8	12 9 7
—	—	—	—	—	—	—	—	149 0 9	1 19 0	2 5 0
—	603 2 1	368 0 10	—	—	—	976 2 11	12 15 8	13,686 13 3	179 5 2	206 11 0
—	129 5 1	24 11 3	—	—	—	153 16 4	2 0 4	813 13 4	10 13 2	12 3 7
—	13 8 3	17 15 0	—	—	—	31 3 3	0 8 2	389 6 1	5 2 0	5 17 6
—	2 7 6	—	—	—	—	3 7 6	0 0 7	65 8 6	0 17 1	0 19 9
—	125 0 0	19 0 0	—	—	—	144 0 0	1 17 9	516 16 2	6 15 5	7 16 0
—	20 9 3	23 8 0	—	—	—	43 17 3	0 11 6	74 19 3	0 19 8	1 2 8
—	898 12 2	452 15 1	—	—	—	1,351 7 3	17 14 0	16,522 17 4	216 8 2	249 7 1
—	—	52 5 9	—	—	—	52 5 9	0 13 8	189 13 10	2 9 8	2 17 3
—	898 12 2	400 9 4	—	—	—	1,299 1 6	17 0 4	16,333 3 6	213 18 6	246 9 10
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	612 5 9	8 16 3	9 9 1
—	—	—	—	—	—	—	—	81 9 0	1 3 5	1 5 2
—	5 16 11	0 5 9	—	—	—	6 2 8	0 1 9	3,544 16 1	51 0 5	54 14 10
—	151 1 7	153 17 5	—	—	—	304 19 0	4 7 9	698 4 10	10 1 0	10 15 7
—	0 10 0	—	—	—	—	0 10 0	0 0 2	346 8 0	4 19 9	5 7 0
—	—	—	—	—	—	—	—	89 12 1	1 5 9	1 7 9
—	43 4 4	7 2 1	—	—	—	50 6 5	0 14 6	372 7 9	5 7 2	5 15 1
—	—	—	—	—	—	—	—	27 11 0	0 7 11	0 8 6
—	200 12 10	161 5 3	—	—	—	361 18 1	5 4 2	5,772 14 6	83 1 8	89 3 0
—	—	9 18 4	—	—	—	9 18 4	0 2 10	33 13 0	0 9 8	0 10 5
—	200 12 10	151 6 11	—	—	—	351 19 9	5 1 4	5,739 1 6	82 12 0	88 13 7

MARY.

—	—	—	—	—	—	—	—	3,093 5 9	10 2 4	13 7 6
—	—	—	—	—	—	—	—	541 5 11	1 15 5	2 6 10
—	2,361 4 6	4,143 13 1	—	—	—	6,504 17 7	21 5 5	40,330 17 11	131 17 8	174 7 4
—	1,332 0 5	1,721 17 9	—	—	—	2,953 18 2	9 13 2	7,256 10 6	23 14 7	31 7 5
—	189 6 5	159 8 4	—	—	—	348 14 9	1 2 10	3,995 9 10	13 1 4	17 5 6
—	15 19 1	0 6 10	—	—	—	16 5 11	0 1 0	374 16 2	1 4 5	1 12 5
—	303 18 7	57 11 5	—	—	—	361 10 0	1 3 8	3,124 16 2	10 4 5	13 10 1
—	68 19 0	106 5 6	—	—	—	175 4 6	0 11 6	312 14 0	1 0 6	1 7 1
—	—	—	—	—	—	—	—	—	—	—
—	4,171 8 0	6,189 2 11	—	—	—	10,360 10 11	33 17 7	59,029 16 3	193 0 8	255 4 2
—	—	706 19 6	—	—	—	706 19 6	2 6 3	1,733 6 8	5 13 8	7 10 4
—	4,171 8 0	5,482 3 5	—	—	—	9,653 11 5	31 11 4	57,291 9 7	187 7 0	247 13 10

has been maintained by special account from February 16th, 1891.

Comptroller is the Net Expenditure brought to Debit during the year. This accounts for the apparent discrepancy between the two Returns.

No. 47.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

ENGINEER-IN-CHIEF'S

PORT AND NORTH

**D—RETURN OF PERMANENT WAY MATERIAL**

No. of District.	Brand.	Rails Used.										Brand.	Rails Removed.									
		Iron Rails.					Steel Rails.						Iron Rails.					Steel Rails.				
		Weight.	Length.	Broken.	Defective.	Worn out.	Total.	Broken.	Defective.	Worn out.	Total.		Weight.	Length.	Broken.	Defective.	Worn Out.	Total.	Broken.	Defective.	Worn Out.	Total.
ORDINARY REPAIRS																						
1	D. I. & Co., '79..... S.A.R., S. J. & J., Stockton, 1874 Moss Bay ..... Darlington Iron Co., F. C. R. R. No. brand on rails...	75 65 61 40 *B	21 0 20 0 21 0 21 0 18 0	— — — — —	— — — — —	4 121 27 95 6	4 124 27 95 6	— — 25 — —	— — — — —	— — 25 — —	D. I. & Co., '79..... S.A.R., S. J. & J., Stockton, 1874 Moss Bay ..... Darlington Iron Co., F. C. R. R. S.A.R., S. J. & J., Stockton, 1874 Darlington Iron Co., F. C. R. R. No. brand on rails...	75 65 61 40 65 40 *B	21 0 20 0 21 0 21 0 20 0 21 0 18 0	— — — 18 — — 12 — — —	— — — — — — — — 95 6	4 124 — 13 12 95 6	4 124 — — 12 95 6	— — 26 — — — — — — —	— — 8 — — — — — — —	— — 31 — — — — — — —		
2	S.A.R., S. J. & J., Stockton, 1874 Blaenavon ..... Darlington Iron Co., F. C. R. R. No. brand on rail ...	65 60 40 *B	20 0 21 0 21 0 18 0	— — — —	— — — —	139 315 172 1	139 315 172 1	— — — —	— — — —	— — — —	S.A.R., S. J. & J., Stockton, 1874 Blaenavon ..... Darlington Iron Co., F. C. R. R. No. brand on rail ...	65 60 40 *B	20 0 21 0 21 0 18 0	— — — —	— — — —	139 315 172 1	139 315 172 1	— — — —	— — — —	— — — —		
3	E. V., 10 " 77..... Darlington Iron Co., F. C. R. R.	41 40	21 0 21 0	— —	— —	6 1 35	6 36	— —	— —	— —	E. V., 10 " 77 ..... Darlington Iron Co., F. C. R. R.	— —	— —	— 1	— —	6 35	6 36	— —	— —	— —	— —	
4	S.A.R., S. J. & J., Stockton, 1874 E. V., 10 " 77..... Darlington Iron Co., F. C. R. R.	65 41 40	20 0 21 0 21 0	— — —	— — —	32 6 3	32 6 3	— 1 —	— — —	— 1 —	S.A.R., S. J. & J., Stockton, 1874 E. V., 10 " 77 ..... Darlington Iron Co., F. C. R. R.	62 41 40	20 0 21 0 21 0	— 1 —	— — —	32 6 3	32 7 3	— — —	— — —	— — —	— — 34	
Totals.....		—	—	—	1	965	966	26	—	26	—											
EXTRAORDINARY REPAIRS																						
1	S.A.R., S. J. & J., Stockton, 1874 Moss Bay .....	65 61	20 0 21 0	2 —	13 —	— —	15 —	— —	— 5	— 5	S.A.R., S. J. & J., Stockton, 1874 Moss Bay .....	65 61	20 0 21 0	2 —	13 —	— —	15 —	— —	— 5	— —	— 5	
2	S.A.R., S. J. & J., Stockton, 1874 B. V. & Co., 1891, Steel. S.A.R.	65 61	21 0 +	— —	5 —	— —	5 —	— —	— —	— 1004	S.A.R., S. J. & J., Stockton, 1874 S.A.R., S. J. & J., Stockton, 1874	65 —	21 0 —	— —	5 —	— —	5 —	— —	— —	— 1004		
3	B. V. & Co., 1891, steel, S.A.R. B. V. & Co., 1891, steel, S.A.R.	61 61	30 0 21 0	— —	— —	— —	— —	— 3	— —	109 3	Blaenavon ..... S.A.R., S. J. & J., Stockton, 1874 S.A.R., S. J. & J., Stockton, 1874 Moss Bay ..... E. V., 10 " 77.....	60 65 65 61 41	21 0 20 0 20 0 31 0 21 0	— — — 1 1	— — — — —	— — — 1 1	— — — — —	— — — — —	— — — — —	100 9 — — —		
4	—	—	—	—	—	—	—	—	—	—	—											
Totals.....		—	—	2	18	—	20	—	8	1113	—											

Adelaide, June 30th, 1891.

\* Bridge.

## DEPARTMENT.

**LINES—continued.**

**FOR THE YEAR ENDING JUNE 30TH, 1891.**

Rails Reversed.		Switches.						Crossings.						Fastenings.				Sleepers.									
Iron.	Steel.	Complete Switch.	Stock Rails.	Switch Blades.	Chairs.	Lever.	Connecting Rods or Spreaders.	Crossings complete.	Wing Rails.	Frog Rails.	Guard Rails.	Blocks.	Bolts.	Finplates.	Finbolts.	Dogspikes.	Fangbolts.	Rodgum.	Jarnah.	Bluegum.	Sugargum.	Karri.	Other Timber.	Long Sleepers.	Ballast.		
No.	No.	Set.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	cub. yds.		
AND RENEWALS.																											
328	—	1	3	3	13	3	—	6	—	—	—	—	175	179	3,026	4,957	1,923	936	—	—	—	—	—	—	68	334	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
117	—	—	—	3	10	2	—	3	—	—	—	—	28	854	3,345	7,614	710	1,545	5,009	933	—	—	4,099	13	4,216		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	5	—	—	—	—	—	—	—	20	42	378	3,300	42	7,910	4,610	—	—	—	3,674	3	3,128		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	3	—	—	—	1	—	—	—	—	13	49	314	2,056	162	472	132	—	—	—	28	5	9		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
445	—	1	3	6	31	5	—	10	—	—	—	—	236	1,124	7,056	17,927	2,337	10,868	2,751	935	—	—	7,792	84	7,687		

## AND RENEWALS.

—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	42	77	424	11	108	—	—	—	—	—	—	—	4	308
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,948	4,022	22,136	—	4,938	—	—	—	—	—	—	151	—	869
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	5	—	—	—	—	—	—	—	—	—	232	452	2,463	—	—	128	—	—	—	—	—	—	—	1,480
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	6	26	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	1	7	—	—	—	—	—	—	—	—	—	2,236	4,557	35,049	11	5,046	128	—	—	—	—	—	151	4	2,632

+ Chiefly 30ft.

**ALEX. B. MONCRIEFF, Engineer-in-Chief.**



## ENGINEER-IN-CHIEF'S

## PORT AND NORTH

**E**—STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION OF  
PORT AND

Gauge,

	Rate of Pay.	Resident Engineer.	Resident Engineer's Assistant.	Surveyor.	Draughtsmen.	Clerks.	District Foremen.	Foremen Works and Buildings.	Gangers.	Fitters
<b>DISTRICT No. 1.</b>										
<i>Length.</i>										
Main line ..... 39m. 0ch.	\$800 per annum	·25	—	—	—	—	—	—	—	—
Sidings ..... 38m. 71ch.	\$150 " .....	—	·25	—	—	—	—	—	—	—
	15/- per diem .....	—	—	—	—	—	1·00	—	—	—
	14/- " .....	—	—	—	—	—	—	·25	—	·04
	10/- " .....	—	—	—	—	·25	—	·04	—	1·00
	9/6 " .....	—	—	—	—	·25	—	—	—	1·20
	9/- " .....	—	—	—	—	—	—	—	—	—
	8/6 " .....	—	—	—	—	·25	—	—	1·00	—
	8/- " .....	—	—	—	—	—	—	—	—	—
	7/6 " .....	—	—	—	—	—	—	—	10·00	—
	7/- " .....	—	—	—	—	—	—	—	—	—
	6/6 " .....	—	—	—	—	·25	—	—	—	—
	6/- " .....	—	—	—	—	—	—	—	—	—
	5/- " .....	—	—	—	—	·25	—	—	—	—
	3/3 " .....	—	—	—	—	—	—	—	—	—
	1/6 " .....	—	—	—	—	·25	—	—	—	—
<b>Total .....</b>	<b>Total .....</b>	<b>·25</b>	<b>·25</b>	<b>—</b>	<b>—</b>	<b>1·50</b>	<b>1·00</b>	<b>·29</b>	<b>11·00</b>	<b>2·24</b>
<b>DISTRICT No. 2.</b>										
<i>Length.</i>										
Main line ..... 61m. 21ch.	\$800 per annum	·25	—	—	—	—	—	—	—	—
Sidings ..... 10m. 49ch.	\$150 " .....	—	·25	—	—	—	—	—	—	—
	\$235 " .....	—	—	—	—	—	·50	—	—	—
	15/- per diem .....	—	—	—	—	—	·50	—	—	—
	14/- " .....	—	—	—	—	·25	—	·04	—	·04
	10/- " .....	—	—	—	—	—	—	—	—	·10
	9/6 " .....	—	—	—	—	—	—	—	—	·25
	9/0 " .....	—	—	—	—	—	—	—	—	—
	8/6 " .....	—	—	—	—	·25	—	—	—	—
	8/- " .....	—	—	—	—	·25	—	—	—	—
	7/6 " .....	—	—	—	—	—	—	—	12·00	—
	7/- " .....	—	—	—	—	—	—	—	—	—
	6/6 " .....	—	—	—	—	·25	—	—	—	—
	6/- " .....	—	—	—	—	—	—	—	—	—
	5/- " .....	—	—	—	—	·25	—	—	—	—
	3/3 " .....	—	—	—	—	—	—	—	—	—
	1/6 " .....	—	—	—	—	·25	—	—	—	—
<b>Total .....</b>	<b>Total .....</b>	<b>·25</b>	<b>·25</b>	<b>—</b>	<b>—</b>	<b>1·50</b>	<b>1·00</b>	<b>·04</b>	<b>12·00</b>	<b>·45</b>
<b>DISTRICT No. 3.</b>										
<i>Length.</i>										
Main line ..... 66m. 21ch.	\$800 per annum	·25	—	—	—	—	—	—	—	—
Sidings ..... 10m. 7ch.	\$150 " .....	—	·25	—	—	—	—	—	—	—
	\$235 " .....	—	—	—	—	—	·50	—	—	—
	15/- per diem .....	—	—	—	—	—	·50	—	—	—
	14/- " .....	—	—	—	—	·25	—	·04	—	·04
	10/- " .....	—	—	—	—	—	—	—	—	·35
	9/6 " .....	—	—	—	—	—	—	—	—	—
	9/- " .....	—	—	—	—	—	—	—	—	—
	8/6 " .....	—	—	—	—	·25	—	—	—	—
	8/- " .....	—	—	—	—	·19	—	—	—	—
	7/6 " .....	—	—	—	—	—	—	—	12·00	—
	7/- " .....	—	—	—	—	—	—	—	—	—
	6/6 " .....	—	—	—	—	·25	—	—	—	—
	6/- " .....	—	—	—	—	—	—	—	—	—
	5/- " .....	—	—	—	—	·25	—	—	—	—
	3/3 " .....	—	—	—	—	—	—	—	—	—
	1/6 " .....	—	—	—	—	·25	—	—	—	—
<b>Total .....</b>	<b>Total .....</b>	<b>·25</b>	<b>·25</b>	<b>—</b>	<b>—</b>	<b>1·44</b>	<b>1·00</b>	<b>·29</b>	<b>12·00</b>	<b>·39</b>
<b>DISTRICT No. 4.</b>										
<i>Length.</i>										
Main line ..... 64m. 62ch.	\$800 per annum	·25	—	—	—	—	—	—	—	—
Sidings ..... 4m. 56ch.	\$150 " .....	—	·25	—	—	—	—	—	—	—
	\$235 " .....	—	—	—	—	—	·50	—	—	—
	15/- per diem .....	—	—	—	—	—	·50	—	—	—
	14/- " .....	—	—	—	—	·25	—	—	—	·04
	9/6 " .....	—	—	—	—	·25	—	—	—	·25
	9/- " .....	—	—	—	—	·25	—	—	—	—
	8/6 " .....	—	—	—	—	·25	—	—	—	—
	8/- " .....	—	—	—	—	—	—	—	—	—
	7/6 " .....	—	—	—	—	—	—	—	11·00	—
	7/- " .....	—	—	—	—	—	—	—	—	—
	6/6 " .....	—	—	—	—	·25	—	—	—	—
	6/- " .....	—	—	—	—	—	—	—	—	—
	5/- " .....	—	—	—	—	·25	—	—	—	—
	3/3 " .....	—	—	—	—	·25	—	—	—	—
	1/6 " .....	—	—	—	—	—	—	—	—	—
<b>Total .....</b>	<b>Total .....</b>	<b>·25</b>	<b>·25</b>	<b>—</b>	<b>—</b>	<b>1·50</b>	<b>1·00</b>	<b>—</b>	<b>11·00</b>	<b>·29</b>
<b>SUMMARY.</b>										
<i>Length.</i>										
Main line ..... 231m. 24ch.										
Sidings ..... 64m. 23ch.										
<b>Total .....</b>	<b>Total No. Men</b>	<b>1·00</b>	<b>1·00</b>	<b>—</b>	<b>—</b>	<b>5·94</b>	<b>4·00</b>	<b>·62</b>	<b>46·00</b>	<b>3·47</b>

Adelaide, June 30th, 1891.

DEPARTMENT.

LINES—continued.

PERSONS EMPLOYED ON MAINTENANCE FOR THE YEAR ENDING JUNE 30TH, 1891.

NORTH LINES.

5ft. 3in.

Smiths.	Strikers.	Plate-layers.	Packers.	Car-penters.	Masons.	Plum-bers.	Paint-ers.	Watch-men.	Chain-men.	Engine-men.	Time-keeper.	Laborers.	Youths.	Boys.	Total.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.33
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.25
2.00	—	—	—	—	.15	.25	—	—	—	—	—	—	—	—	3.70
—	—	—	—	4.00	—	—	—	—	—	—	—	—	—	—	4.00
—	—	—	—	—	—	1.00	—	—	—	—	—	—	—	—	2.34
—	—	—	—	—	—	.50	—	—	—	1.00	—	—	—	—	1.50
—	1.50	—	—	—	—	—	—	—	—	—	.75	—	—	—	10.75
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.50
—	—	—	30.00	—	—	—	—	—	—	—	—	5.00	—	—	35.25
—	—	—	5.00	—	—	—	—	—	—	—	—	27.75	—	—	32.75
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	1.00	—	1.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
2.00	1.50	—	35.00	4.00	.15	1.84	—	—	—	1.00	.75	32.75	1.00	—	96.62
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.50
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.50
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.33
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.16
—	—	—	—	—	.50	—	—	—	—	—	—	—	—	—	.75
—	—	—	—	—	—	.23	—	—	—	—	—	—	—	—	.53
—	—	—	—	—	—	—	1.00	—	—	—	—	—	—	—	.47
—	—	—	—	—	—	—	.50	—	—	—	—	—	—	—	1.25
—	.23	—	—	—	—	—	—	—	—	—	.50	—	—	—	12.00
—	—	—	18.00	—	—	—	—	—	—	—	—	—	—	—	1.22
—	—	—	18.00	—	—	—	—	—	—	—	—	41.00	—	—	18.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	59.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	.84	—	.34
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	.23	—	26.00	.53	.50	.23	1.50	—	—	—	.50	41.00	.84	—	96.30
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.50
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.75
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.33
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.04
.40	—	—	—	—	.50	.50	—	—	—	—	—	—	—	—	1.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.50
—	—	—	—	—	—	.18	—	—	—	—	—	—	—	—	.38
—	—	—	—	—	—	—	—	.08	—	—	—	—	—	—	.27
—	.16	—	—	—	—	—	—	—	—	—	—	—	—	—	12.00
—	—	—	18.00	—	—	—	—	—	—	—	—	—	—	—	.16
—	—	—	19.00	—	—	—	—	—	—	—	—	—	—	—	18.25
—	—	—	—	—	—	—	—	—	—	—	.25	32.00	—	—	51.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	.25	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
.40	.16	—	37.00	.50	.50	.17	—	.08	—	—	.25	32.00	.25	—	86.33
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.50
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.79
.17	—	—	—	.35	.03	—	—	—	—	—	—	—	—	—	.45
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.50
—	—	—	—	—	—	.10	—	—	—	—	—	—	—	—	.35
—	—	—	—	—	—	—	.05	—	—	—	—	—	—	—	.05
—	.10	—	—	—	—	—	—	—	—	—	—	—	—	—	11.00
—	—	—	19.00	—	—	—	—	—	—	—	—	—	—	—	.10
—	—	—	3.00	—	—	—	—	—	—	—	—	6.47	—	—	19.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.47
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
.17	.10	—	22.00	.25	.03	.10	.05	—	—	—	—	6.47	—	—	43.46
2.57	1.98	—	130.00	5.28	1.18	2.33	1.55	.08	—	1.00	1.50	112.23	1.59	—	323.81

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## SOUTHERN SYSTEM.

## SOUTHERN LINES.

**A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION DURING THE YEAR ENDING**  
**JUNE 30TH, 1891.**  
 Gauge, 5ft. 3in.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
<b>CAPITAL ACCOUNT.</b>				
<i>District No. 1.</i>				
Mile End .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Bay-road (2m. 34ch.)	Erecting two electric gongs .....	pt. C. 2203	**2 18 1	Completed
Mitcham .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Blackwood .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
	Erecting of additional "up home" signal .....	pt. 5712	24 3 8	Completed
	Additional rooms to maintenance cottage .....	pt. C. 2403	1 0 6	Not completed
Belair .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Mount Lofty .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Aldgate .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
	Purchase of land for reservoir .....	1466	20 0 0	Completed
	Erecting swing gate .....	C. 2622	*2 18 1	Completed
Bridgewater .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Ambleside .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Balhannah .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Mt. Barker Junction	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Nairne .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
	Drain to protect land adjoining line .....	C. 2666	24 16 2	Completed
Callington .....	Alteration of parallel bars .....	pt. C. 1789	**0 11 10	Completed
Whole District .....	Superelevation posts for curves .....	pt. C. 2799	5 16 8	Not completed
			88 15 2	
<b>CREDITS—</b>				
Mile End (1m. 9ch.)	Alteration of parallel bars .....	pt. C. 1789	3 2 9	
Bay-road (2m. 34ch.)	Erecting two electric gongs .....	pt. C. 2203	6 0 0	
Mitcham .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Blackwood .....	Alteration of parallel bars .....	pt. C. 1789	3 2 6	
Belair .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Mount Lofty .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Aldgate .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Bridgewater .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Ambleside .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Balhannah .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Mt. Barker Junction	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Nairne .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
Callington .....	Alteration of parallel bars .....	pt. C. 1789	3 2 8	
			43 12 1	
Total .....		—	45 3 1	
<i>District No. 2.</i>				
Mount Barker .....	Metalling road adjacent to siding .....	C. 2640	17 1 2	Completed
	Sheep and cattle yards .....	pt. C. 2856	74 2 1	Not completed
Bugle Ranges .....	Erecting gate, construction of cattle guards, &c. ....	6041	84 6 1	Completed
Strathalbyn .....	Refixing meter at Terminus Hotel .....	6024	* 2 14 0	Completed
	Fixing stop blocks to siding .....	C. 2540	4 9 11	Completed
	Metalling road adjacent to siding .....	pt. C. 2900	12 13 6	Not completed
Total .....		—	195 6 9	
<i>District No. 2A.</i>				
55½ miles .....	Laying guard rails on crossing .....	C. 2558	* 1 16 9	Completed
Milang .....	Cattle yards and ramp .....	pt. C. 2044	0 4 1	Completed
Currency Creek .....	Strengthening bridge with ironwork .....	pt. 4339	1 11 2	Completed
Goolwa .....	Window in booking-office .....	C. 2663	3 6 5	Completed
	Stove for office .....	C. 2853	2 10 0	Completed
	Putting slip panel in fence .....	C. 2874	* 0 12 10	Completed
Port Victor .....	Erection of turntable .....	pt. C. 2453	440 8 1	Completed
	Erecting wicket gate in fence .....	C. 2536	* 3 0 11	Completed
	Laying pipe working jetty to stationary tank .....	C. 2541	4 10 11	Completed
	Additional alteration to booking-office .....	pt. C. 2772	* 18 4 0	Not completed
Strathalbyn .....	Fencing line .....	pt. 6480	3 0 6	Not completed
Whole District .....	Surveying station yards .....	pt. 4981	4 19 6	Not completed
			484 5 2	
<b>CREDITS—</b>				
Milang .....	Extending platform, &c. ....	pt. C. 2266	3 17 2	
Gilberts (61m. 76ch.)	Laying through siding .....	pt. C. 2329	9 7 0	
Total .....			13 4 2	
			471 1 0	

\*\* Credits.

\* Reimbursement.

SOUTHERN

## SOUTHERN LINES—continued.

## A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION, &amp;c.—continued.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
CAPITAL ACCOUNT—continued.				
District No. 3.				
Monarto .....	Alteration of parallel bars .....	pt. C. 1789	0 11 9	Completed
Murray Bridge .....	Alteration of parallel bars .....	pt. C. 1789	0 11 9	Completed
	Erection of lamp room .....	pt. C. 2172	20 18 7	Completed
	Additions to locomotive foreman's house .....	pt. C. 2343	0 10 0	Completed
	Watertank for locomotive foreman's house .....	C. 2851	4 8 0	Completed
	Verandahs to locomotive cottages 72, 73, 74, and 75 .....	pt. C. 2344	14 5 10	Completed
	Additional rooms to cottage 73 .....	C. 2716	68 10 0	Completed
	Ballast boards on the Murray Bridge .....	pt. C. 2379	5 12 5	Completed
	Additions to district foreman's store .....	pt. C. 2380	0 3 0	Completed
	Floor in verandah of stationmaster's house .....	C. 2619	11 17 0	Completed
Taillem Bend .....	Alteration of parallel bars .....	pt. C. 1789	0 11 9	Completed
Cooke's Plains .....	Alteration of parallel bars .....	pt. C. 1789	0 11 9	Completed
Coonalpyn .....	Alteration of parallel bars .....	pt. C. 1789	0 11 9	Completed
			129 3 7	
CREDIT—				
Monarto .....	Alteration to parallel bars .....	pt. C. 1789	3 2 8	
Murray Bridge .....	Alteration to parallel bars .....	pt. C. 1789	3 2 8	
Taillem Bend .....	Alteration to parallel bars .....	pt. C. 1789	3 2 8	
Cooke's Plains .....	Alteration to parallel bars .....	pt. C. 1789	3 2 8	
Coonalpyn .....	Alteration to parallel bars .....	pt. C. 1789	3 2 8	
	Total .....	—	15 13 4	
			113 10 3	
District No. 4.				
Wirrega .....	Erection of small platform .....	pt. 3936	10 13 9	Completed
Bordertown .....	Providing and fixing rain-water tank .....	pt. 6736	11 18 0	Completed
	Additional rooms cottages No. 143 and 144 .....	pt. 6048	121 18 5	Completed
	Suction pipe at reservoir .....	pt. C. 2363	10 9 8	Not completed
	Providing and fixing windows in loco. cabin .....	C. 2556	5 9 9	Completed
	Loading place for cattle and horses .....	C. 2809	29 8 0	Completed
	New flood openings, Tatiara Creek .....	pt. C. 2813	5 6 4	Not completed
	Alteration to parallel bars .....	pt. C. 1789	**0 11 9	Completed
Wolsley .....	Alteration to parallel bars .....	pt. C. 1789	0 11 9	Completed
	Broad-gauge weighbridge .....	pt. C. 2227	4 12 9	Completed
	Roof over changing platform .....	pt. 6643	104 16 0	Not completed
	Planting yard .....	C. 2520	8 5 10	Completed
	Alteration to stationmaster's house .....	C. 2597	22 19 6	Completed
	Pump for cleaning ashpit .....	C. 2655	10 12 10	Completed
	Repairing transfer-shed door .....	C. 2822	* 1 19 0	Completed
			349 13 4	
CREDITS—				
Bordertown .....	Removing and returning to store 12-ton weighbridge ..	pt. 5325	80 0 0	
	Alteration to parallel bars .....	pt. C. 1789	** 3 2 8	
186 miles 12 chains..	Repairing floors of maintenance cottages .....	pt. 4824	4 15 6	
Wolsley .....	Repairing floors of maintenance cottages .....	pt. 4824	4 15 6	
	Alteration to parallel bars .....	pt. C. 1789	3 2 8	
	Broad-gauge weighbridge .....	pt. C. 2227	16 4 0	
Wirrega, 171 miles..	Fencing both sides of line .....	pt. 4250	3 17 2	
			115 17 6	
	Total .....	—	233 15 10	
	Aggregate total £1,058 16s. 11d.			

\*\* Credits.

\* Reimbursement.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## SOUTHERN LINES—continued.

**B**—DESCRIPTION OF EXTRAORDINARY WORKS OF REPAIRS AND RENEWALS FOR THE YEAR  
ENDING JUNE 30TH, 1891.

Gauge, 5ft. 3in.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
MAINTENANCE AND RENEWAL ACCOUNT.				
District No 1.				
Mile End .....	†Repairing gates .....	pt. C. 2508	1 2 11	Completed
8½ miles .....	Adjusting rods of viaduct .....	C. 2538	38 11 9	Completed
Blackwood .....	Repairing reservoir .....	pt. C. 2484	54 14 11	Completed
	Cleaning out reservoir .....	C. 2794	97 8 8	Completed
Belair .....	Cement rendering to front and ends of cottage No. 10	C. 2604	6 19 6	Completed
16½ miles .....	†Repairing line .....	pt. C. 2508	1 14 2	Completed
18 miles .....	Repairing cutting .....	C. 2500	6 12 0	Completed
Upper Sturt .....	Building small retaining wall .....	pt. C. 2658	6 9 4	Completed
18½ miles .....	Repairing fence at earth slip .....	pt. C. 2508	0 13 0	Completed
Mount Lofly .....	†Repairing points .....	C. 2639	3 7 8	Completed
22 miles .....	Removing earth slip .....	pt. C. 2508	2 0 3	Completed
22½ miles .....	Removing earth slip in cutting .....	C. 2701	5 0 3	Completed
Bridgewater .....	Cement washing to stationmaster's house .....	C. 2670	1 13 0	Completed
Mt. Barker Junction	Constructing catch drain .....	C. 2698	2 8 8	Completed
	Cement rendering to wall and altering fireplace in stationmaster's house .....	C. 2660	5 4 4	Completed
	Alteration to closets .....	C. 2658	1 1 11	Completed
32½ miles .....	Removing earth slip in cutting .....	C. 2610	5 0 0	Completed
Nairne .....	†Repairing switches .....	C. 2495	4 9 3	Completed
2½ miles to 2¾ miles ..	Renewing fencing .....	pt. C. 2830	46 8 2	Not completed
Nairne to Callington..	Removing earth slip in cutting .....	C. 2588	7 16 0	Completed
Whole district .....	Check blocks at crossings .....	pt. C. 2467	7 5 2	Not completed
			306 0 11	
CREDITS—				
Mile End .....	Substituting high wood for short iron signal .....	pt. C. 2062	40 0 0	
Aldgate .....	Cleaning out reservoir .....	pt. C. 2342	5 17 0	
Nairne .....	†Replacing trolley .....	pt. C. 2450	0 5 11	
2 miles to 2½ miles ..	Renewing fencing .....	pt. C. 2237	2 6 5	
			48 9 4	
Total .....		—	257 11 7	
District No. 2.				
Mount Barker .....	†Repairing scotch block .....	pt. C. 2503	0 6 0	Completed
Philleox Hill (38½ miles) .....	Guard rails at crossing .....	pt. C. 2491	3 5 3	Completed
Strathalbyn .....	†Repairing points .....	pt. C. 2508	0 11 3	Completed
	†Repairing running shed door .....	pt. C. 2884	2 18 8	Not completed
Whole district .....	Check blocks at crossings .....	pt. C. 2467	17 14 10	Not completed
			24 16 0	
District No. 2A.				
Milang .....	†Repairing windmill .....	pt. C. 2508	2 13 9	Completed
Finniss .....	Altering course of creek to protect wall of bridge .....	C. 2787	35 0 1	Completed
Currency Creek .....	Diverting and filling up drain .....	C. 2814	21 13 3	Completed
67½ miles .....	Removing earth slips in cutting .....	C. 2787	24 15 9	Completed
Goolwa .....	Strengthening wharf .....	pt. C. 2241	** 0 10 6	Completed
72½ miles .....	Grading and metalling level crossing .....	C. 2498	5 5 6	Completed
Port Victor .....	Renewing piles in jetty .....	pt. C. 2242	** 6 12 0	Completed
	†Repairing goods shed door .....	pt. C. 2508	1 7 3	Completed
	Repairing flue of engine shed .....	pt. C. 2508	0 17 1	Not completed
	Repairing deck of jetty .....	pt. C. 2831	20 9 11	Completed
Strathalbyn to Goolwa	Strengthening line .....	pt. C. 1944	** 53 10 3	Completed
52 miles to 52½ miles	Relaying line with 61lb. rails .....	pt. C. 2496	318 13 2	Completed
55 miles to 56½ miles	§ Replacing ballast .....	C. 2527	11 7 1	Completed
Finniss to Gilbert's..	Relaying with 61lb. rails .....	pt. C. 2612	2,683 3 9	Not completed
74½ miles to 76 miles	Rebuilding culverts .....	pt. C. 2238	5 1 5	Completed
			3,191 0 9	
CREDITS—				
Black Swamp .....	Renewing piles in bridge .....	pt. C. 2014	41 12 9	
Currency Creek .....	Renewing masonry in bridge .....	pt. C. 2132	6 11 2	

\*\* Credits.

† Damaged by accident.

|| Damaged by fire.

‡ Damaged by storm.

SOUTHERN

## SOUTHERN LINES—continued.

## B—DESCRIPTION OF EXTRAORDINARY WORKS, &amp;c.—continued.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
MAINTENANCE AND RENEWAL ACCOUNT—continued.				
District No. 2A—continued.				
Goolwa .....	Strengthening wharf .....	pt. C. 2241	5 14 6	
Port Victor .....	Renewing piles in jetty .....	pt. C. 2242	8 11 11	
Strathalbyn to Goolwa	Strengthening line .....	pt. C. 1944	200 6 11	
			262 17 3	
	Total .....	—	2,928 3 6	
District No. 3.				
Murray Bridge .....	Raising girders, approach to bridge .....	pt. C. 1571	** 148 19 2	Not completed
	Re-roofing district foreman's house .....	pt. C. 2329	1 6 1	Completed
	† Repairing points .....	pt. C. 2508	0 7 6	Completed
	Securing cutting between station and bridge .....	C. 2537	19 13 0	Completed
	† Repairing goods shed door .....	C. 2712	5 0 6	Completed
68½ miles .....	Boarding floors of rooms, cottage 85 .....	{ C. 2448 }	10 6 10	Completed
56 to 57 miles .....	Securing cuttings .....	C. 2700 }	20 0 2	Completed
		C. 2548	205 13 3	
CREDITS—				
Murray Bridge .....	Raising girders, approach to bridge .....	pt. C. 1571	204 1 8	
	Re-roofing district foreman's house .....	pt. C. 2239	8 1 8	
	Repairing engine shed floor .....	pt. C. 2271	1 11 0	
			213 14 4	
	Excess credit .....	—	8 1 1	
District No. 4.				
Bordertown .....	† Repairing switches .....	C. 2489	2 19 4	Completed
	§ Replacing signal arm .....	pt. C. 2508	1 16 0	Completed
	Repairing fence .....	pt. C. 2508	1 7 6	Completed
Wolsley .....	Cement rendering to weighbridge pit .....	C. 2642	5 8 6	Completed
	Altering and improving cattle yards .....	C. 2699	8 13 11	Completed
Whole district .....	Altering brake blocks of travelling tank .....	C. 2543	2 11 1	Completed
			22 16 4	
CREDIT—				
Bordertown .....	Erection of new station .....	pt. C. 2191	6 0 0	
	Total .....	—	16 16 4	
	Aggregate total £3,219 6s. 4d.			

\*\* Credits.  
Adelaide, June 30th, 1891.

† Damaged by accident.

|| Damaged by fire.

‡ Damaged by storm.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER-IN-CHIEF'S  
SOUTHERNC—RETURN OF COST OF WORKS OF MAINTENANCE  
MAINTENANCE AND  
Gauge

ORDINARY AND CURRENT REPAIRS.									
Mileage.	Sub-head. =	Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.
		\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
DISTRICT 1.	General expenses—								
Main line..... 49m. 10c.	Engineering and supervision .....	—	430 8 8	85 18 0	—	—	—	516 6 8	9 8 5
Sidings..... 5m. 54c.	Sick and recreation leave .....	—	156 19 7	—	—	—	—	156 19 7	3 17 3
Double switches, nil	Way .....	—	3,097 8 9	205 5 5	71 10 9	—	—	3,274 4 11	61 11 6
Single switches, No. 90	Works .....	100 6 1	643 11 1	74 5 11	—	—	—	717 17 0	13 1 10
	Buildings .....	—	105 0 9	52 12 0	—	—	—	257 18 10	4 14 2
	Rolling-stock .....	—	25 13 4	19 12 8	—	—	—	45 6 0	0 16 6
	Machinery, tools, &c. ....	—	444 13 4	97 15 7	—	—	—	542 8 11	9 18 0
	Water, fuel, &c. ....	—	18 18 7	4 6 6	—	—	—	23 5 1	0 8 6
	Gross total .....	100 6 1	4,922 14 1	539 16 1	71 10 9	—	—	5,634 7 6	102 16 3
	Reimbursements .....	—	—	32 6 1	—	—	—	32 6 1	0 11 9
	Net total .....	100 6 1	4,922 14 1	507 10 0	71 10 9	—	—	5,602 0 11	102 4 5
DISTRICT 2.	General expenses—								
Main line..... 17m. 62c.	Engineering and supervision .....	—	151 16 11	32 16 0	—	—	—	184 12 11	8 14 1
Sidings..... 3m. 35c.	Sick and recreation leave .....	—	62 1 0	—	—	—	—	62 1 0	2 18 6
Double switches, No. 1	Way .....	—	985 13 9	12 11 8	18 2 10	—	—	1,016 8 3	47 18 4
Single switches, No. 54	Works .....	52 16 5	202 3 10	20 14 6	—	—	—	222 18 4	10 10 2
	Buildings .....	—	43 8 5	33 15 1	—	—	—	129 14 11	6 2 4
	Rolling-stock .....	—	8 18 8	15 14 2	—	—	—	24 12 5	1 3 3
	Machinery, tools, &c. ....	—	58 13 2	16 4 7	—	—	—	74 17 9	3 10 7
	Water, fuel, &c. ....	—	48 6 5	7 3 11	—	—	—	55 10 4	2 12 4
	Gross total .....	52 16 5	1,560 16 9	138 19 11	18 2 10	—	—	1,770 15 11	83 9 7
	Reimbursements .....	—	—	20 3 2	—	—	—	20 3 2	0 19 0
	Net total .....	52 16 5	1,560 16 9	118 16 9	18 2 10	—	—	1,750 12 9	82 10 7
DISTRICT 2A.	General expenses—								
Main line..... 38m. 24c.	Engineering and supervision .....	—	318 2 6	68 14 8	—	—	—	386 17 2	8 16 11
Sidings..... 5m. 34c.	Sick and recreation leave .....	—	89 2 6	—	—	—	—	89 2 6	2 0 9
Double switches, nil	Way .....	—	1,805 9 7	416 17 8	30 11 8	—	—	2,352 18 11	51 10 6
Single switches, No. 66	Works .....	39 0 11	410 11 8	91 3 4	—	—	—	501 15 0	11 9 6
	Buildings .....	—	46 9 11	12 17 7	—	—	—	98 8 5	2 5 0
	Rolling-stock .....	—	9 1 11	10 0 5	—	—	—	19 2 4	0 8 9
	Machinery, tools, &c. ....	—	110 17 5	30 6 7	—	—	—	141 4 0	3 4 7
	Water, fuel, &c. ....	—	29 16 3	9 17 11	—	—	—	39 14 2	0 18 2
	Gross total .....	39 0 11	2,619 11 9	639 18 2	30 11 8	—	—	3,329 2 6	80 14 2
	Reimbursements .....	—	26 11 4	151 10 5	—	—	—	178 1 9	4 1 5
	Net total .....	39 0 11	2,798 0 5	488 7 9	30 11 8	—	—	3,351 0 9	76 12 9
DISTRICT 3.	General expenses—								
Main line..... 67m. 0c.	Engineering and supervision .....	—	470 10 1	112 8 8	—	—	—	582 18 9	8 2 11
Sidings..... 4m. 43c.	Sick and recreation leave .....	—	163 2 9	—	—	—	—	163 2 9	2 5 7
Double switches, nil	Way .....	—	3,381 12 7	68 3 2	49 3 7	—	—	3,498 19 4	48 18 3
Single switches, No. 48	Works .....	5 0 0	429 7 2	26 13 3	—	—	—	461 0 5	6 8 11
	Buildings .....	123 9 1	173 8 5	83 13 4	—	—	—	384 10 10	5 7 6
	Rolling-stock .....	—	22 8 6	33 13 1	—	—	—	55 16 7	0 15 7
	Machinery, tools, &c. ....	10 0 0	321 4 9	46 1 2	—	—	—	277 5 11	3 17 6
	Water, fuel, &c. ....	5 0 0	13 10 6	5 13 8	—	—	—	24 6 2	0 6 10
	Gross total .....	143 9 1	4,673 19 9	381 8 4	49 3 7	—	—	5,448 0 9	76 3 1
	Reimbursements .....	—	—	46 12 3	—	—	—	46 12 3	0 13 0
	Net total .....	143 9 1	4,673 19 9	334 16 1	49 3 7	—	—	5,401 8 6	75 10 1
DISTRICT 4.	General expenses—								
Main line—	Engineering and supervision .....	—	518 2 4	131 3 6	—	—	—	649 5 10	7 14 7
Broad gauge 240m. 11c.	Sick and recreation leave .....	—	174 17 10	—	—	—	—	174 17 10	2 1 7
Mixed " 12m. 19c.	Way .....	—	4,245 9 5	66 15 11	42 2 1	—	—	4,354 7 5	51 16 9
Narrow " 0m. 22c.	Works .....	—	301 12 5	11 13 6	—	—	—	313 5 11	3 14 7
	Buildings .....	4 4 1	88 12 9	47 3 2	—	—	—	140 0 0	1 13 4
	Rolling-stock .....	—	28 5 5	23 15 10	—	—	—	52 1 3	0 12 5
Sidings—	Machinery, tools, &c. ....	—	179 12 7	49 16 6	—	—	—	229 9 1	3 14 7
Broad gauge 20m. 61c.	Water, fuel, &c. ....	—	35 8 1	9 2 0	—	—	—	44 10 1	0 10 7
Mixed " 1m. 69c.	Gross total .....	4 4 1	5,572 0 10	339 10 5	42 2 1	—	—	5,957 17 5	70 18 5
	Reimbursements .....	—	1 11 6	14 15 2	—	—	—	16 6 8	0 3 11
	Net total .....	4 4 1	5,570 9 4	324 15 3	42 2 1	—	—	5,941 10 9	70 14 6
Double switches, No. 1									
Single switches, No. 309									
	General expenses—								
Main line—	Engineering and supervision .....	—	1,889 0 6	431 0 10	—	—	—	2,320 1 4	8 8 7
Broad gauge 240m. 11c.	Sick and recreation leave .....	—	646 3 8	—	—	—	—	646 3 8	2 6 11
Mixed " 12m. 19c.	Way .....	—	13,515 14 1	769 13 10	311 10 11	—	—	14,498 18 10	52 13 3
Narrow " 0m. 22c.	Works .....	5 0 0	1,987 6 2	224 10 6	—	—	—	2,216 16 8	8 1 1
	Buildings .....	319 16 7	455 15 3	235 1 2	—	—	—	1,010 13 0	3 13 5
	Rolling-stock .....	—	94 2 5	102 16 2	—	—	—	196 18 7	0 14 4
Sidings—	Machinery, tools, &c. ....	10 0 0	1,015 1 3	240 4 5	—	—	—	1,265 5 8	4 11 11
Broad gauge 20m. 61c.	Water, fuel, &c. ....	5 0 0	145 19 10	36 6 0	—	—	—	187 5 10	0 13 7
Mixed " 1m. 69c.	Gross total .....	339 16 7	19,749 3 2	2,039 12 11	311 10 11	—	—	22,340 3 7	81 3 1
	Reimbursements .....	—	28 2 10	265 7 1	—	—	—	293 9 11	1 1 4
	Net total .....	339 16 7	19,721 0 4	1,774 5 10	311 10 11	—	—	22,046 18 8	80 1 9

SUM

NOTE.—The Aggregate Total shown in the Return is the *Actual* Expenditure incurred during the year. That shown on the Return furnished by Adelaide, June 30th, 1891.

## DEPARTMENT.

LINES—continued.

AND RENEWAL FOR THE YEAR ENDING JUNE 30TH, 1891.

RENEWAL ACCOUNT.

5ft. 3in.

EXTRAORDINARY REPAIRS AND RENEWALS.								TOTALS.		
Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	AGGREGATE TOTAL.	Average Cost per Mile of Single Line, including Sidings.	Average Cost per Mile of Railway.
\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
—	—	—	—	—	—	—	—	516 6 8	9 8 5	10 10 3
—	—	—	—	—	—	—	—	156 19 7	2 17 3	3 3 11
—	4 1 8	12 14 7	—	—	—	16 16 3	0 6 2	3,391 1 2	61 17 8	69 0 7
—	85 3 6	36 18 10	—	—	—	122 2 4	2 4 7	239 19 4	15 6 5	17 2 0
—	10 1 0	4 17 9	—	—	—	14 18 9	0 5 5	272 17 7	4 19 7	5 11 1
—	—	—	—	—	—	—	—	45 6 0	0 16 6	0 18 5
—	—	—	—	—	—	—	—	542 8 11	9 18 0	11 0 10
—	137 15 0	14 8 7	—	—	—	152 3 7	2 15 6	175 8 8	3 4 0	3 11 5
—	237 1 2	68 19 9	—	—	—	306 0 11	5 11 8	5,940 7 11	108 7 10	120 18 6
—	—	48 9 4	—	—	—	48 9 4	0 17 8	80 15 5	1 9 5	1 12 11
—	237 1 2	20 10 5	—	—	—	237 11 7	4 14 0	5,859 12 6	106 18 5	119 5 7
—	—	—	—	—	—	—	—	184 12 11	8 14 1	10 7 9
—	—	—	—	—	—	—	—	62 1 0	2 18 6	3 9 10
—	0 12 9	17 19 4	—	—	—	18 12 1	0 17 6	1,035 0 4	48 15 10	58 4 7
—	1 6 6	1 18 9	—	—	—	3 5 3	0 3 1	226 8 7	10 13 3	12 14 6
—	2 4 9	0 13 11	—	—	—	2 18 8	0 2 9	132 13 7	6 5 1	7 9 3
—	—	—	—	—	—	—	—	24 12 5	1 3 3	1 7 8
—	—	—	—	—	—	—	—	74 17 9	3 10 7	4 4 3
—	—	—	—	—	—	—	—	55 10 4	2 12 4	3 2 6
—	4 4 0	20 12 0	—	—	—	24 16 0	1 3 4	1,795 11 11	84 12 11	101 0 4
—	—	—	—	—	—	—	—	20 3 2	0 19 0	1 2 8
—	4 4 0	20 12 0	—	—	—	24 16 0	1 3 4	1,775 8 9	83 13 11	99 17 8
—	—	—	—	—	—	—	—	386 17 2	8 16 11	10 2 0
—	—	—	—	—	—	—	—	69 2 6	2 0 9	2 6 6
—	719 9 9	2,847 4 6	—	—	—	3,066 14 3	70 2 9	5,319 13 2	121 13 3	188 17 11
—	81 6 2	38 19 4	—	—	—	120 5 6	2 15 0	624 0 6	14 4 6	16 4 10
—	0 16 1	0 11 2	—	—	—	1 7 3	0 0 7	99 15 8	2 4 7	2 12 1
—	—	—	—	—	—	—	—	19 2 4	0 8 9	0 10 0
—	2 4 9	0 9 0	—	—	—	2 18 9	0 1 3	143 17 9	3 5 10	3 15 2
—	—	—	—	—	—	—	—	39 14 2	0 18 2	1 0 9
—	803 16 9	2,387 4 0	—	—	—	3,191 0 9	72 19 7	6,720 3 3	153 13 9	175 9 3
—	—	262 17 3	—	—	—	262 17 3	6 0 3	440 19 0	10 1 9	11 10 3
—	803 16 9	2,124 6 9	—	—	—	2,928 3 6	66 19 4	6,279 4 3	143 12 1	163 19 0
—	—	—	—	—	—	—	—	582 18 9	8 2 11	8 14 0
—	—	—	—	—	—	—	—	163 2 9	2 5 7	2 8 8
—	0 7 6	—	—	—	—	0 7 6	0 0 1	3,499 6 10	48 18 4	52 4 7
—	83 13 9	104 19 7	—	—	—	188 12 4	3 12 9	649 12 9	9 1 8	9 13 11
—	6 9 0	10 4 3	—	—	—	16 13 5	0 4 8	401 4 3	5 12 2	5 19 9
—	—	—	—	—	—	—	—	55 16 7	0 15 7	0 16 8
—	—	—	—	—	—	—	—	277 5 11	3 17 6	4 2 9
—	—	—	—	—	—	—	—	24 6 2	0 6 10	0 7 3
—	90 9 3	115 4 0	—	—	—	205 13 3	2 17 6	5,653 14 0	79 0 7	84 7 7
—	—	213 14 4	—	—	—	213 14 4	2 19 9	260 6 7	3 12 9	3 17 9
—	90 9 3	*98 10 4	—	—	—	*8 1 1	*0 2 3	5,393 7 5	75 7 10	80 9 10
—	—	—	—	—	—	—	—	649 5 10	7 14 7	8 1 5
—	—	—	—	—	—	—	—	174 17 10	2 1 7	2 3 6
—	1 12 0	1 7 4	—	—	—	2 19 4	0 0 8	4,357 6 9	51 17 5	54 3 3
—	1 7 6	—	—	—	—	1 7 6	0 0 4	314 13 5	3 14 11	3 18 3
—	8 13 3	0 0 8	—	—	—	8 13 11	0 2 1	148 13 11	1 15 5	1 17 0
—	2 1 5	0 9 8	—	—	—	2 11 1	0 0 7	54 12 4	0 13 0	0 13 7
—	5 6 0	1 18 6	—	—	—	7 4 6	0 1 9	236 13 7	2 16 4	2 18 10
—	—	—	—	—	—	—	—	44 10 1	0 10 7	0 11 0
—	19 0 2	3 16 2	—	—	—	22 16 4	0 5 5	5,980 13 9	71 3 10	74 6 10
—	—	6 0 0	—	—	—	6 0 0	0 1 5	22 6 8	0 5 4	0 5 7
—	19 0 2	*2 3 10	—	—	—	16 16 4	0 4 0	5,958 7 1	70 18 6	74 1 3

\* Excess Cr.

## MARY.

—	—	—	—	—	—	—	—	2,320 1 4	8 8 7	9 3 8
—	—	—	—	—	—	—	—	646 3 8	2 6 11	2 11 2
—	796 3 8	2,379 5 9	—	—	—	3,105 9 5	11 5 8	17,602 8 3	63 18 11	69 13 5
—	252 16 6	182 16 6	—	—	—	435 12 11	1 11 8	2,652 9 7	9 12 9	10 10 0
—	28 4 1	16 7 11	—	—	—	44 12 0	0 3 3	1,055 5 0	3 16 8	4 3 6
—	2 1 5	0 9 8	—	—	—	2 11 1	0 0 2	199 9 8	0 14 6	0 15 9
—	7 10 9	2 7 6	—	—	—	9 18 3	0 0 9	1,275 3 11	4 12 8	5 0 11
—	137 15 0	14 8 7	—	—	—	152 3 7	0 11 1	339 9 5	1 4 8	1 6 10
—	1,154 11 4	2,595 15 11	—	—	—	3,750 7 3	13 12 7	26,090 10 10	94 15 8	103 5 3
—	6 0 0	525 0 11	—	—	—	531 0 11	1 18 7	824 10 10	2 19 11	3 5 3
—	1,148 11 4	2,070 15 0	—	—	—	3,219 6 4	11 14 0	23,266 0 0	91 15 9	100 0 0

the Comptroller is the Net Expenditure brought to Debit during the year. This accounts for the apparent discrepancy between the two Returns.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

No. 47.



D—RETURN OF PERMANENT WAY MATERIAL

No. of District.	Brand.	Rails Used.										Brand.	Rails Removed.										
		Weight.	Length.	Iron Rails.				Steel Rails.					Weight.	Length.	Iron Rails.				Steel Rails.				
				Broken.	Defective.	Worn out.	Total.	Broken.	Defective.	Worn out.	Total.				Broken.	Defective.	Worn out.	Total.					
																			No.	No.	No.	No.	No.
		lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.			lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.
ORDINARY REPAIRS																							
1	Dowlais Steel N. and V. B. R., 1883	61	21 0	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
	Cumberland Steel A. and N. Ry., 1880	61	21 0	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2A	Darlington Iron Co., '68, F. C. R. R.	40	21 0	133	—	—	133	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Darlington Iron Co., '68, F. C. R. R.	40	18 0	13	—	—	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	A. I. Co. ....	40	21 0	141	—	—	141	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	A. I. Co. ....	40	18 0	9	—	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	No brand .....	40	21 0	49	—	—	49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	No brand .....	40	18 0	3	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	Dowlais Steel N. and V. B. Ry., 1883	61	21 0	—	—	—	—	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—
4	Dowlais Steel N. and V. B. Ry., 1883	61	21 0	—	—	—	—	6	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—
	Totals .....	—	—	348	—	—	348	10	—	—	10	—	—	—	—	—	—	—	—	—	—	—	—
EXTRAORDINARY REPAIRS																							
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2A	B. V. & Co., 1888, Steel S.A.R.	61	30 0	—	—	—	—	738	—	—	738	—	—	—	—	—	—	—	—	—	—	—	—
	B. V. & Co., 1888, Steel S.A.R.	61	18 0	—	—	—	—	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—
	Cammel's Toughened Steel W., 1890, S.A.R., S.E.C., 148 A.	61	30 0	—	—	—	—	70	—	—	70	—	—	—	—	—	—	—	—	—	—	—	—
	Totals .....	—	—	—	—	—	—	810	—	—	810	—	—	—	—	—	—	—	—	—	—	—	—

Adelaide, June 30th, 1891.

\* No record has been kept

E—STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION OF Gauge,

		Rate of Pay.	Resident Engineer.	Resident Engineer's Assistant.	Surveyor.	Draughtsmen.	Clerks.	District Foreman.	Foremen Works and Buildings.	Gaugers.	Fitters.
		\$450 per annum	19	—	—	—	—	—	—	—	—
		\$250 "	—	03	—	—	—	—	—	—	—
		\$320 "	—	12	—	—	—	—	—	—	—
		\$180 "	—	04	—	—	—	—	—	—	—
		15/- per diem ...	—	—	—	—	—	04	—	—	02
		14/- " .....	—	—	—	—	—	—	09	—	02
		13/- " .....	—	—	—	—	—	—	—	—	—
		11/8 " .....	—	—	—	—	—	06	—	—	—
		11/- " .....	—	—	—	—	19	—	—	—	—
		10/6 " .....	—	—	—	—	—	—	—	—	04
		10/- " .....	—	—	—	—	—	—	—	—	—
		9/- " .....	—	—	—	—	—	—	—	—	05
		8/6 " .....	—	—	—	—	—	—	—	—	—
		8/- " .....	—	—	—	—	—	—	—	5-09	—
		7/6 " .....	—	—	—	—	—	—	—	3-35	—
		7/3 " .....	—	—	—	—	—	—	—	05	—
		7/- " .....	—	—	—	—	14	—	—	04	03
		6/9 " .....	—	—	—	—	—	—	—	12	—
		6/6 " .....	—	—	—	—	—	—	—	—	—
		6/- " .....	—	—	—	—	05	—	—	—	—
		5/6 " .....	—	—	—	—	12	—	—	—	—
		1/8 " .....	—	—	—	—	—	—	—	—	—
		Total .....	19	19	—	—	50	1-00	09	9-15	1-07

DEPARTMENT.  
LINES—continued.  
FOR YEAR ENDING JUNE 30TH, 1891.

Rails Reversed.		Switches.						Crossings.						Fastenings.				Sleepers.						Ballast. cub. yds.	
Iron.	Steel.	Complete Switch.	Stock Rails.	Switch Blades.	Chairs.	Lever.	Connecting Rods or Spreaders.	Crossings Complete.	Wing Rails.	Frog Rails.	Guard Rails.	Blocks.	Bolts.	Fishplates.	Fishbolts.	Dogspikes.	Fangbolts.	Redgum.	Jarrah.	Bluegum.	Sugarum.	Karri.	Other Timber.		Long Sleepers.
No.	No.	Set.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		No.
AND RENEWALS.																									
-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	273	865	-	-	32	-	-	-	-	-	230
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	11	120	-	1	-	-	-	-	-	-
-	-	2	-	-	4	-	-	5	-	-	-	6	-	4	564	5,389	-	492	-	-	-	-	-	152	24
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	2	-	-	5	-	-	6	-	-	-	6	-	5	852	7,472	-	-	548	-	-	-	-	152	298

AND RENEWALS.																									
-	-	-	-	1	-	-	-	-	-	-	-	72	-	-	-	98	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	176	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,624	3,192	19819	-	473	2,342	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	1	-	-	-	-	-	-	-	248	-	1,624	3,192	19917	-	473	2,342	-	-	-	-	-	-

of rails removed.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

PERSONS EMPLOYED ON MAINTENANCE FOR THE YEAR ENDING JUNE 30TH, 1891.  
5ft. 3in.

Smiths.	Strikers.	Platelayers.	Packers.	Carpenters.	Masons.	Plumbers.	Painters.	Watchmen.	Chainmen.	Enginemen.	Timekeepers.	Laborers.	Youths.	Boys.	Total.
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.19
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.03
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.04
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.94
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.11
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.03
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.06
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.19
-	-	-	-	.15	-	-	-	-	-	-	-	-	-	-	.15
.28	-	-	-	.17	-	-	-	-	-	-	-	-	-	-	1.22
-	-	-	-	.47	-	-	-	-	-	-	-	-	-	-	.42
-	-	-	-	-	-	-	.25	-	-	-	-	-	-	-	.59
-	-	-	-	-	-	-	.07	-	-	-	-	-	-	-	5.45
-	-	-	-	-	-	-	.38	-	-	-	-	-	-	-	3.41
-	-	-	-	-	-	-	-	-	.06	-	-	-	-	-	.05
-	-	-	-	-	-	-	.15	-	-	-	-	-	-	-	1.21
-	.27	-	-	-	-	-	-	-	-	-	-	-	-	-	.12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.75
-	.02	-	8.61	-	-	-	-	-	-	-	-	.14	-	-	17.70
-	-	-	17.60	-	-	-	-	-	-	-	-	.09	.07	-	.12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.12
.28	.29	-	26.21	.79	-	-	.86	-	.06	-	-	.28	.07	-	41.02

ENGINEER

## ENGINEER-IN-CHIEF'S

## SOUTHERN

**E**—STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION  
Gauge,

	Rate of Pay.	Resident Engineer.	Res. Engineer's Assistant.	Surveyor.	Draughtsmen.	Clerks.	District Foremen.	Foremen Works and Buildings.	Gangers.	Fitters.
District No. 2. Length. Main line ..... 17m. 62ch. Sidings ..... 3m. 35ch. Total ..... 21m. 17ch.	\$450 per annum	·07	—	—	—	—	—	—	—	—
	\$250 " "	—	·01	—	—	—	—	—	—	—
	\$220 " "	—	·05	—	—	—	—	—	—	—
	\$180 " "	—	·11	—	—	—	—	—	—	—
	15/- per diem ...	—	—	—	—	—	·32	—	—	—
	14/- " "	—	—	—	—	—	—	—	—	·01
	13/- " "	—	—	—	—	—	—	—	—	·02
	11/- " "	—	—	—	—	·07	—	—	—	—
	10/6 " "	—	—	—	—	—	—	—	—	—
	10/- " "	—	—	—	—	—	—	—	—	·04
	9/- " "	—	—	—	—	—	—	—	—	—
	8/6 " "	—	—	—	—	—	—	—	—	—
	8/- " "	—	—	—	—	—	—	—	2·06	—
	7/6 " "	—	—	—	—	—	—	—	·11	—
	7/3 " "	—	—	—	—	—	—	—	·03	—
	7/- " "	—	—	—	—	·05	—	—	·56	—
	6/6 " "	—	—	—	—	—	—	—	—	—
	6/- " "	—	—	—	—	—	—	—	—	—
	5/6 " "	—	—	—	—	·02	—	—	—	—
	4/- " "	—	—	—	—	—	—	—	—	—
	1/8 " "	—	—	—	—	·03	—	—	—	—
	Total.....	·07	·07	—	—	·19	·32	—	2·76	·07
District No. 2A. Length. Main line ..... 34m. 24ch. Sidings ..... 5m. 34ch. Total ..... 39m. 58ch.	\$450 per annum	·15	—	—	—	—	—	—	—	—
	\$250 " "	—	·02	—	—	—	—	—	—	—
	\$220 " "	—	·01	—	—	—	—	—	—	—
	\$180 " "	—	·03	—	—	—	—	—	—	—
	15/- per diem ...	—	—	—	—	—	·68	—	—	—
	14/- " "	—	—	—	—	—	—	·10	—	—
	13/- " "	—	—	—	—	—	—	—	—	·02
	11/- " "	—	—	—	—	·15	—	—	—	·10
	10/6 " "	—	—	—	—	—	—	—	—	—
	10/- " "	—	—	—	—	—	—	—	—	·05
	9/- " "	—	—	—	—	—	—	—	·89	—
	8/6 " "	—	—	—	—	—	—	—	2·70	—
	8/- " "	—	—	—	—	—	—	—	·03	—
	7/6 " "	—	—	—	—	—	—	—	1·80	—
	7/3 " "	—	—	—	—	—	—	—	·02	—
	7/- " "	—	—	—	—	·11	—	—	2·05	·26
	6/9 " "	—	—	—	—	—	—	—	·14	—
	6/6 " "	—	—	—	—	—	—	—	—	—
	6/- " "	—	—	—	—	—	—	—	—	—
	5/6 " "	—	—	—	—	·04	—	—	—	—
	4/- " "	—	—	—	—	—	—	—	—	—
	3/6 " "	—	—	—	—	—	—	—	—	—
	1/8 " "	—	—	—	—	·09	—	—	—	—
	Total.....	·15	·15	—	—	·39	·63	·10	5·63	·43
District No. 3. Length. Main line ..... 67m. 0ch. Sidings ..... 4m. 43ch. Total ..... 71m. 43ch.	\$450 per annum	·23	—	—	—	—	—	—	—	—
	\$250 " "	—	·03	—	—	—	—	—	—	—
	\$220 " "	—	·16	—	—	—	—	—	—	—
	\$180 " "	—	·03	—	—	—	—	—	—	—
	14/- per diem ...	—	—	—	—	—	·44	·06	—	—
	13/- " "	—	—	—	—	—	·52	—	—	—
	11/- " "	—	—	—	—	·25	·05	—	—	—
	10/6 " "	—	—	—	—	—	—	—	—	·40
	10/- " "	—	—	—	—	—	—	—	—	—
	9/- " "	—	—	—	—	—	—	—	—	—
	8/6 " "	—	—	—	—	—	—	—	9·87	·02
	8/- " "	—	—	—	—	—	—	—	·52	—
	7/6 " "	—	—	—	—	—	—	—	·21	—
	7/3 " "	—	—	—	—	·18	—	—	·10	—
	7/- " "	—	—	—	—	—	—	—	·03	—
	6/9 " "	—	—	—	—	—	—	—	—	—
	6/6 " "	—	—	—	—	—	—	—	—	—
	6/- " "	—	—	—	—	·07	—	—	—	—
	5/6 " "	—	—	—	—	·15	—	—	—	—
	1/8 " "	—	—	—	—	—	—	—	—	—
	Total.....	·25	·24	—	—	·65	1·00	·06	10·73	·42
District No. 4. Length. Main line ..... 30m. 36ch. Sidings ..... 3m. 44ch. Total ..... 34m. 0ch.	\$450 per annum	·28	—	—	—	—	—	—	—	—
	\$250 " "	—	·03	—	—	—	—	—	—	—
	\$220 " "	—	·19	—	—	—	—	—	—	—
	\$180 " "	—	·06	—	—	—	—	—	—	—
	14/- per diem ...	—	—	—	—	—	·79	—	—	·01
	13/- " "	—	—	—	—	—	·20	—	—	·01
	11/- " "	—	—	—	—	·29	·01	—	—	—
	10/6 " "	—	—	—	—	—	—	—	—	—
	10/- " "	—	—	—	—	—	—	—	—	·45
	9/- " "	—	—	—	—	—	—	—	—	—
	8/6 " "	—	—	—	—	—	—	—	—	—
	8/- " "	—	—	—	—	—	—	—	12·05	·02
	7/6 " "	—	—	—	—	—	—	—	·76	—
	7/3 " "	—	—	—	—	·22	—	—	—	—
	7/- " "	—	—	—	—	—	—	—	—	—
	6/6 " "	—	—	—	—	—	—	—	—	—
	6/- " "	—	—	—	—	·07	—	—	—	—
	5/6 " "	—	—	—	—	·18	—	—	—	—
	1/8 " "	—	—	—	—	—	—	—	—	—
	Total.....	·28	·29	—	—	·76	1·00	—	12·81	·49
SUMMARY. Length. Main line ..... 252m. 52ch. Sidings ..... 22m. 50ch. Total ..... 275m. 22ch.	Total No. Men	·94	·93	—	—	2·51	4·00	·25	41·08	2·48

Adelaide, June 30th, 1891.



**ENGINEER-IN-CHIEF'S DEPARTMENT.**  
**WESTERN SYSTEM.**  
**PORT WAKEFIELD LINES.**

**A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION DURING THE YEAR ENDING**  
**JUNE 30TH, 1891.**

**LOCOMOTIVE LINE.**  
**Gauge, 3ft. 6in.**

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	

**CAPITAL ACCOUNT.**

*District No. 1.*

Balaklava .....	Erecting three 3-roomed maintenance cottages.....	C. 2209	243 0 2	Completed
	Metalling approach to goods shed.....	C. 2544	19 17 10	Completed
Dunn's Well .....	Removing siding .....	C. 2545	** 11 9 0	Completed
Halbury .....	Erecting shelter-shed, laying siding removed from Auburn-road, extending existing siding, and metalling road.....	pt. C. 2763	210 11 4	Completed
	Erecting three 3-roomed maintenance cottages.....	pt. 6330	571 12 9	Completed
82½ mile (Blyth line) From Balaklava to Port Wakefield.....	Erecting two 3-roomed maintenance cottages .....	pt. 6331	365 4 7	Completed
Port Wakefield.....	Providing and fixing grade boards .....	pt. C. 2385	17 17 11	Not completed
	Providing additional W.C. accommodation .....	C. 2531	106 1 10	Completed
	Extending wheat siding and constructing two boarded crossings .....	C. 2566	113 6 5	Completed
	Deepening channel, building retaining wall, and leveling station yard .....	pt. C. 2711	717 18 11	
Whole district .....	Erecting ten tricycle sheds .....	C. 2359	8 7 3	Completed
	Erecting verandahs to three blocks maintenance cottages .....	C. 2282	85 2 0	Completed
	<b>CREDIT.</b>		2,470 10 0	
Dunn's Well.....	Removing siding .....	C. 2545	27 8 1	
	<b>Total .....</b>	—	£2,443 1 11	

*District No. 2.*

South Hummocks ..	Erecting two water columns.....	C. 2490	166 19 1	Completed
Paakeville .....	Constructing goods shed .....	6332	102 8 4	Completed
Wallaroo .....	† Repairing new jetty .....	C. 2517	10 0 0	Completed
	Laying water service to stables .....	C. 2646	18 8 10	Completed
Willamulka .....	Additional room to maintenance cottage .....	C. 2575	41 8 8	Completed
Bute .....	Additional siding accommodation .....	C. 2465	216 14 11	Completed
Barunga Gap .....	Two additional rooms to maintenance cottage.....	C. 2675	} 82 18 8	Completed
		C. 2631		
Snowtown .....	Drain to protect wheat stacks .....	C. 2408	22 13 7	Completed
	Metalling approach to goods shed .....	C. 2577	19 11 0	Completed
Whole district .....	Erecting verandahs to eight blocks of maintenance cottages .....	C. 2282	186 0 0	Completed
	Erecting ten tricycle sheds .....	C. 2359	8 7 3	Completed
	<b>Total .....</b>	—	875 10 4	
	<b>Aggregate total, £3,318 12s. 3d.</b>			

**HORSEPOWER LINE.**

**Gauge, 5ft. 3in.**

Moonta .....	Survey of horsepower line .....	C. 2682	219 8 3	Completed
	Erecting temporary stable .....	pt. C. 2692	23 3 10	Completed
			£242 12 1	

\*\* Credit.

\* Reimbursements.

+ Damaged by accident.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

ENGINEER-IN-CHIEF'S DEPARTMENT.  
PORT WAKEFIELD LINE—continued.

**B**—DESCRIPTION OF EXTRAORDINARY WORKS OF REPAIRS AND RENEWALS FOR YEAR ENDING  
JUNE 30<sup>TH</sup>, 1891.  
Gauge, 3ft. 6in.

Station or Mileage.	Description of Work.	D.O.	Total Cost.	State if Completed.

LOCOMOTIVE LINES.

MAINTENANCE AND RENEWAL ACCOUNT.

District No. 1.

Stockyard Creek ....	Removing old house .....	C. 2715	** 3 15 0	Completed
63½ miles .....	Cleaning out reservoir .....	pt. C. 2872	329 19 10	
Blyth line—	Removing maintenance cottages .....	pt. C. 2855	** 4 3 3	
84½ miles .....	Repairing culvert .....	C. 2449	** 8 7 10	Completed
84½ miles .....	†Repairing culvert .....	C. 2589	73 16 6	Completed
Kybunga .....	†Repairing goods shed .....	C. 2512	1 2 9	Completed
Saints .....				
From 7 miles to Port				
Wakefield .....	Refencing line .....	pt. C. 2809	9 15 7	
Port Wakefield .....	Refencing between railway and police station yards....	C. 2669	24 14 0	Completed
Whole district .....	Draughtsmen's salaries, head office .....	C. 2506	75 17 1	
			531 11 0	
	CREDITS.			
Stockyard Creek ....	Removing old house .....	C. 2715	5 10 3	
63½ miles .....	Removing maintenance cottages .....	C. 2855	6 12 0	
84½ miles .....	Repairing culvert .....	C. 2449	10 12 0	
			22 14 3	
	Total .....	—	508 17 7	

District No. 2.

Paskeville .....	§Repairing signal .....	C. 2512	0 13 6	Completed
Wallaroo .....	Removing old junction station buildings .....	C. 2705	** 16 18 7	Completed
	Barricading approach to old jetty .....	C. 2572	2 0 0	Completed
Bute .....	Removing box office from Paskeville .....	C. 2463	15 18 5	Completed
	Removing W.C. and urinals from Mona .....	C. 2768	4 19 9	Completed
Near Snowtown .....	†Repairing velocipede .....	C. 2512	1 19 4	Completed
Snowtown .....	Levelling station yard .....	C. 2579	2 15 0	Completed
Whole district .....	Draftsmen's salaries, head office .....	C. 2506	55 9 1	
			100 13 8	
	CREDIT.			
Wallaroo .....	Removing old junction station buildings .....	C. 2705	21 14 5	
	Total .....	—	78 19 3	
	Aggregate total, £587 16s. 10d.			

HORSEPOWER LINE.

Gauge, 5ft. 3in.

Wallaroo .....	†Repairing stable .....	C. 2614	15 2 6	Completed
Halfway .....	†Repairing stable .....	C. 2512	1 7 3	Completed
	Total .....	—	16 9 9	

\*\* Credits.

+ Accidents.

‡ Damaged by flood.

‡ Damaged by storm.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER-IN-CHIEF'S  
PORT WAKEFIELD

C—RETURN OF COST OF WORKS OF MAINTENANCE  
MAINTENANCE AND  
LOCOMOTIVE  
Gauge,

ORDINARY AND CURRENT REPAIRS.									
Mileage.	Sub-head.	Contract.	Labor.	Stores and Material.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.
		\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
DISTRICT 1. Main line ..... 68m. 66c. Sidings ..... 7m. 81c. Double switches, No. 18 Single switches, No. 70 Stump switches, No. 7	General expenses—								
	Engineering and supervision ...	—	520 17 1	37 17 6	—	—	0 1 10	585 16 5	7 6 8
	Sick and recreation leave .....	—	150 3 1	—	—	—	—	150 3 1	1 19 5
	Way .....	—	2,854 4 3	119 19 10	16 11 7	5 13 8	41 6 3	2,887 15 7	37 4 8
	Works .....	—	540 6 9	41 13 9	0 1 6	1 13 4	3 0 0	586 15 4	7 14 0
	Buildings .....	289 4 8	129 2 5	41 2 8	—	—	3 11 9	463 1 6	6 1 6
	Rolling-stock .....	—	21 6 8	12 17 2	—	—	6 1 8	40 5 6	0 10 7
	Machinery, tools, &c. ....	1 10 0	39 13 0	16 12 0	—	—	1 16 9	59 11 9	0 15 8
	Water, fuel, &c. ....	—	11 13 11	1 9 5	—	—	—	13 3 4	0 3 5
	Gross total .....	290 14 8	4,067 7 2	271 12 4	16 13 1	7 7 0	55 18 3	4,709 12 6	61 15 11
	Reimbursements .....	—	—	60 13 4	—	—	—	60 13 4	0 15 11
	Net total .....	590 14 8	4,067 7 2	210 19 0	16 13 1	7 7 0	55 18 3	4,648 19 2	61 0 0
DISTRICT 2. Main line ..... 68m. 61c. Sidings ..... 9m. 4c. Double switches, No. 8 Single switches, No. 76 Stump switches, No. 18	General expenses—								
	Engineering and supervision ...	—	494 17 2	27 6 4	—	—	—	522 3 6	6 14 3
	Sick and recreation leave .....	—	163 9 1	—	—	—	—	163 9 1	2 2 0
	Way .....	—	2,681 5 9	185 18 9	22 7 7	6 19 0	39 0 11	2,935 12 0	37 14 6
	Works .....	—	711 16 5	134 2 4	—	—	—	845 18 9	10 17 5
	Buildings .....	70 13 11	94 15 6	57 1 1	—	—	—	222 10 6	2 17 2
	Rolling-stock .....	—	30 7 2	24 16 9	—	—	—	45 3 11	0 11 8
	Machinery, tools, &c. ....	5 10 0	39 19 2	18 8 1	—	—	—	63 17 3	0 16 5
	Water, fuel, &c. ....	—	24 16 11	3 2 3	—	—	—	27 19 2	0 7 2
	Gross total .....	76 3 11	4,231 7 2	450 15 7	22 7 7	6 19 0	39 0 11	4,826 14 2	62 0 7
	Reimbursements .....	—	—	8 5 9	—	—	—	8 5 9	0 2 1
	Net total .....	76 3 11	4,231 7 2	442 9 10	22 7 7	6 19 0	39 0 11	4,818 8 5	61 18 6
SUM									
Main line ..... 137m. 47c. Sidings ..... 16m. 35c. Double switches, No. 24 Single switches, No. 146 Stump switches, No. 25	General expenses—								
	Engineering and supervision ...	—	1,015 14 3	65 3 10	—	—	0 1 10	1,080 19 11	7 0 4
	Sick and recreation leave .....	—	313 12 2	—	—	—	—	313 12 2	2 0 9
	Way .....	—	5,335 10 0	305 18 7	38 19 2	12 12 8	80 7 2	5,773 7 7	37 9 8
	Works .....	—	1,252 3 2	175 16 1	0 1 6	1 13 4	3 0 0	1,432 14 1	9 6 0
	Buildings .....	359 18 7	223 17 11	98 3 9	—	—	3 11 9	686 12 0	4 9 1
	Rolling-stock .....	—	41 13 10	37 13 11	—	—	6 1 8	85 9 5	0 11 1
	Machinery, tools, &c. ....	7 0 0	79 12 2	35 0 1	—	—	1 16 9	123 9 0	0 16 0
	Water, fuel, &c. ....	—	36 10 10	4 11 8	—	—	—	41 2 6	0 5 4
	Gross total .....	366 18 7	8,298 14 4	722 7 11	39 0 8	14 6 0	94 19 2	9,536 6 8	61 18 3
	Reimbursements .....	—	—	68 19 1	—	—	—	68 19 1	0 8 11
	Net total .....	366 18 7	8,298 14 4	653 8 10	39 0 8	14 6 0	94 19 2	9,467 7 7	61 9 4
HORSEPOWER									
Gauge									
Main line ..... 20m. 0c. Sidings ..... Nil Double switches ..... Nil Single switches ..... Nil	General expenses—								
	Engineering and supervision ...	—	85 18 3	4 11 4	—	—	—	90 9 7	4 10 6
	Sick and recreation leave .....	—	30 19 6	—	—	—	—	30 19 6	1 11 0
	Way .....	—	467 7 2	38 15 1	4 1 3	—	—	510 3 6	25 10 2
	Works .....	—	20 12 6	1 12 2	—	—	—	22 4 8	1 2 3
	Buildings .....	—	33 2 6	32 5 4	—	—	—	65 7 10	3 5 5
	Rolling-stock .....	—	4 1 3	1 0 2	—	—	—	5 1 5	0 5 1
	Machinery, tools, &c. ....	—	4 10 10	—	—	—	—	4 10 10	0 4 6
	Water, fuel, &c. ....	—	1 13 6	—	—	—	—	1 13 6	0 1 8
	Gross total .....	—	648 5 6	78 4 1	4 1 3	—	—	730 10 0	36 10 7
	Reimbursements .....	—	—	15 17 3	—	—	—	15 17 3	0 15 10
	Net total .....	—	648 5 6	62 6 10	4 1 3	—	—	714 13 7	35 14 9

NOTE.—The Aggregate Total shown on this Return is the Actual Expenditure incurred during the year. That shown on the Return furnished by

\*\* Excess

DEPARTMENT.

LINE—continued.

AND RENEWAL FOR THE YEAR ENDING JUNE 30TH, 1891.

RENEWAL ACCOUNT.

LINES.

3ft. 6in.

EXTRAORDINARY REPAIRS AND RENEWALS.								TOTALS.		
Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	AGGREGATE TOTAL.	Average Cost per Mile of Single Line, including Sidings.	Average Cost per Mile of Railway.
\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
—	75 4 7	0 12 6	—	—	—	75 17 1	0 19 11	634 13 6	8 6 7	9 4 5
—	—	—	—	—	—	—	—	150 3 1	1 19 5	2 3 8
—	—	—	—	—	—	—	—	2,837 15 7	37 4 8	41 4 8
—	54 9 9	57 4 1	—	0 8 0	4 12 1	116 13 11	1 10 7	708 9 3	9 4 7	10 4 5
—	9 1 0	—	—	—	—	9 1 0	0 2 5	472 2 6	6 3 11	6 17 2
—	—	—	—	—	—	—	—	40 5 6	0 10 7	0 11 8
—	—	—	—	—	—	—	—	59 11 9	0 15 8	0 17 4
—	244 5 3	85 14 7	—	—	—	329 19 10	4 6 7	343 3 2	4 10 0	4 19 9
—	383 0 7	143 11 2	—	0 8 0	4 12 1	531 11 10	6 19 6	5,241 4 4	68 15 5	78 3 1
—	—	22 14 3	—	—	—	22 14 3	0 5 11	83 7 7	1 1 11	1 4 3
—	383 0 7	120 16 11	—	0 8 0	4 12 1	508 17 7	6 13 7	5,157 16 9	67 13 6	74 18 10
—	—	—	—	—	—	—	—	—	—	—
—	54 16 7	0 12 6	—	—	—	55 9 1	0 14 3	577 12 7	7 8 6	8 8 0
—	—	—	—	—	—	—	—	163 9 1	2 2 0	2 7 7
—	—	—	—	—	—	—	—	2,935 12 0	37 14 6	42 13 0
—	4 15 0	—	—	—	—	4 15 0	0 1 2	850 18 9	10 18 8	12 7 5
—	30 18 4	6 18 5	—	—	—	37 16 9	0 9 9	260 7 3	3 6 11	3 15 9
—	1 19 4	—	—	—	—	1 19 4	0 0 6	47 3 3	0 12 2	0 13 9
—	0 10 6	0 3 0	—	—	—	0 13 6	0 0 2	64 10 9	0 16 7	0 18 9
—	—	—	—	—	—	—	—	27 19 2	0 7 2	0 8 1
—	92 19 9	7 13 11	—	—	—	100 13 8	1 5 10	4,927 7 10	63 6 6	71 13 2
—	—	21 14 5	—	—	—	21 14 5	0 5 7	30 0 2	6 7 9	0 8 9
—	92 19 9	** 15 19 6	—	—	—	78 19 3	1 0 3	4,897 7 8	62 18 9	71 4 5

MARY.

—	130 1 2	1 5 0	—	—	—	131 16 2	0 17 1	1,212 6 1	7 17 5	8 16 3
—	—	—	—	—	—	—	—	313 12 2	3 0 9	2 5 7
—	—	—	—	—	—	—	—	5,773 7 7	37 9 8	41 19 3
—	59 4 9	57 4 1	—	0 8 0	4 12 1	121 8 11	0 15 9	1,554 3 0	10 1 10	11 5 11
—	39 19 4	6 18 5	—	—	—	46 17 9	0 6 1	732 9 9	4 13 1	5 6 6
—	1 19 4	—	—	—	—	1 19 4	0 0 3	87 8 9	0 11 4	0 12 6
—	0 10 6	0 3 0	—	—	—	0 13 6	0 0 1	124 2 6	0 16 1	0 18 1
—	244 5 3	85 14 7	—	—	—	329 19 10	2 2 10	371 2 4	2 8 2	2 13 11
—	476 0 4	151 5 1	—	0 8 0	4 12 1	632 5 6	4 2 1	10,168 12 2	66 0 4	73 18 2
—	—	44 8 8	—	—	—	44 8 8	0 5 9	113 7 9	0 14 8	0 16 6
—	476 0 4	106 16 5	—	0 8 0	4 12 1	587 16 10	3 16 4	10,055 4 5	65 5 8	73 1 8

LINES.

5ft. 3in.

—	—	—	—	—	—	—	—	90 9 7	4 10 6	4 10 6
—	—	—	—	—	—	—	—	30 19 6	1 11 0	1 11 0
—	—	—	—	—	—	—	—	510 3 6	25 10 2	25 10 2
—	8 13 1	7 16 8	—	—	—	16 9 9	0 16 6	22 4 8	1 2 3	1 2 3
—	—	—	—	—	—	—	—	81 17 7	4 1 11	4 1 11
—	—	—	—	—	—	—	—	5 1 5	0 5 1	0 5 1
—	—	—	—	—	—	—	—	4 10 10	0 4 6	0 4 6
—	—	—	—	—	—	—	—	1 13 6	0 1 8	0 1 8
—	8 13 1	7 16 8	—	—	—	16 9 9	0 16 6	747 0 7	37 7 1	37 7 1
—	—	—	—	—	—	—	—	15 17 3	0 15 10	0 15 10
—	8 13 1	7 16 8	—	—	—	16 9 9	0 16 6	731 3 4	36 11 8	36 11 8

the Comptroller is the Net Expenditure brought to Debit during the year. This accounts for the apparent discrepancy between the two Returns.

Credit.



D—RETURN OF PERMANENT WAY MATERIAL USED IN MAINTENANCE

LOCOMOTIVE

Gauge, 3ft. 6in. Weight of rails—

No. of District.	Brand.	Rails Used.										Brand.	Rails Removed.									
		Iron Rails, 40lbs.						Steel Rails, 41lbs.					Iron Rails.						Steel Rails.			
		Weight.	Length.	Broken.	Defective.	Worn out.	Total.	Broken.	Defective.	Worn out.	Total.		Weight.	Length.	Broken.	Defective.	Worn out.	Total.	Broken.	Defective.	Worn out.	Total.
lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.	No.	lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.		
1	E. V. Steel, 1877..... A. I. & Co., S. A. R. T. I. & C. Ld., 1878..	41 40 40	22 21 22	— — —	— — —	12 12 6	12 12 6	— — —	— — —	8 — —	8 — —	E. V. Steel, 1877 ..... T. I. & Co., Ld., 1878 Hopkins, Gilkes, & Co.	41 40 40	22 22 22	— — 1	— — —	— 18 22	— 18 22	— — —	— — —	8 — —	8 — —
2	Blaenavon N.R., 1874 Blaenavon N.R., 1874 T. I. & Co., S. A. R. E. V. Steel, 1877.....	43 40 40 41	22 17 22 22	1 — — —	— — — —	29 5 1 —	30 5 1 —	— — — —	— — — —	— — — —	— — 24 24	A. I. & Co., S. A. R. E. V. Steel, 1877 ..... T. I. & Co., Ld., 1878 Blaenavon N. R., 1874 Blaenavon N. R., 1874	40 41 40 40 40	21 22 22 22 17	— — — — —	— — — — —	12 — 10 8 5	12 — 10 8 5	— — — — —	— — — — —	— 2 — — —	— 2 — — —
	Totals .....	—	—	1	—	53	54	—	—	32	32	—	—	—	1	—	75	76	—	—	10	10

ORDINARY REPAIRS

1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Totals .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

EXTRAORDINARY REPAIRS

1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Totals .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

HORSEPOWER

Gauge, 5ft. 3in. Weight of rails—

ORDINARY REPAIRS

1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Totals .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

EXTRAORDINARY REPAIRS

Adelaide, June 30th, 1891.

E—STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION OF  
LOCOMOTIVE

		Rate of Pay.	Resident Engineer.	Resident Engineer's Assistant.	Surveyor.	Draughtsmen.	Clerks.	District Foreman.	Foremen Works and Buildings.	Gangers.	Fitters.	Smiths.
DISTRICT No. 1.		\$350 per annum.....	15	—	—	—	—	—	—	—	—	—
Length.		\$300 " .....	45	—	—	—	—	—	—	—	—	—
Main line .....	68m. 66c.	15/- per diem .....	—	—	—	—	—	1-00	—	—	—	—
Sidings .....	7m. 31c.	13/- " .....	—	—	—	—	45	—	—	—	—	—
Total .....	76m. 17c.	10/- " .....	—	—	—	—	—	—	—	9-06	—	—
		7/6 " .....	—	—	—	—	34	—	—	—	—	—
		6/6 " .....	—	—	—	—	11	—	—	—	—	—
		5/- " .....	—	—	—	—	—	—	—	—	—	—
Total.....			60	—	—	—	90	1-00	—	9-06	—	—
DISTRICT No. 2.		\$350 per annum.....	15	—	—	—	—	—	—	—	—	—
Length.		\$300 " .....	45	—	—	—	—	—	—	—	—	—
Main line .....	68m. 61ch.	\$190 " .....	—	—	—	—	—	23	—	—	—	—
Sidings .....	9m. 4ch.	14/- per diem .....	—	—	—	—	—	67	—	—	—	—
Total .....	77m. 65ch.	13/- " .....	—	—	—	—	45	—	—	—	—	—
		10/- " .....	—	—	—	—	—	—	—	—	—	—
		7/6 " .....	—	—	—	—	34	—	—	8-89	—	—
		7/- " .....	—	—	—	—	—	—	—	20	—	—
		6/6 " .....	—	—	—	—	—	—	—	—	—	—
		6/- " .....	—	—	—	—	—	—	—	—	—	—
		5/- " .....	—	—	—	—	—	—	—	—	—	—
Total.....			60	—	—	—	90	90	—	9-09	—	—
SUMMARY.												
Length.												
Main line.....	137m. 47ch.		—	—	—	—	—	—	—	—	—	—
Sidings.....	16m. 35ch.		—	—	—	—	—	—	—	—	—	—
Total .....	154m. 2ch.	Total No. of men.....	1-20	—	—	—	1-80	1-90	—	19-15	—	—

HORSEPOWER

		\$350 per annum .....	03	—	—	—	—	—	—	—	—	—
Length.		\$300 " .....	10	—	—	—	—	—	—	—	—	—
Main line .....	20m. 0c.	\$190 " .....	—	—	—	—	—	03	—	—	—	—
Sidings .....	Nil	14/- per diem .....	—	—	—	—	—	07	—	—	—	—
Total .....	20m. 0c.	13/- per diem .....	—	—	—	—	10	—	—	—	—	—
		10/- " .....	—	—	—	—	—	—	—	—	—	—
		7/6 " .....	—	—	—	—	07	—	—	1-66	—	—
		7/- " .....	—	—	—	—	—	—	—	—	—	—
		6/6 " .....	—	—	—	—	08	—	—	—	—	—
		6/- " .....	—	—	—	—	—	—	—	—	—	—
Total No. of men .....			13	—	—	—	20	10	—	1-66	—	—

Adelaide, June, 30th, 1891.

## DEPARTMENT.

LINE—continued.

OF PERMANENT WAY FOR THE YEAR ENDING JUNE 30TH, 1891.

## LINES.

40lbs., and 41lbs., per yard.

Rails Reversed.		Switches.						Crossings.						Fastenings.				Sleepers.								
Iron.	Steel.	Complete Switch.	Stock Rails.	Switch Blades.	Chairs.	Lever.	Connecting Rods or Spreaders.	Crossings Complete.	Wing Rails.	Frog Rails.	Guard Rails.	Blocks.	Bolts.	Fishplates.	Fishbolts.	Dogspikes.	Fangbolts.	Redgum.	Jarrah.	Bluegum.	Sugargum.	Karri.	Other Timber.	Long Sleepers.	Ballast.	
No.	No.	Set.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	cu. yds.	
AND RENEWALS.																										
—	—	—	—	—	—	—	—	—	—	—	—	—	53	—	153	269	17	228	—	—	—	—	—	—	530	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	2	—	1	—	—	—	—	2	3	169	902	61	148	1	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	2	—	1	—	—	—	—	55	3	322	1,171	78	474	1	—	—	—	—	9	1,166	

## AND RENEWALS.

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## LINE.

40lbs. per yard.

## AND RENEWALS.

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	833	—	330	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	833	—	330	—	—	—	—	—	—	—

## AND RENEWALS.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## PERSONS EMPLOYED ON MAINTENANCE FOR THE YEAR ENDING JUNE 30TH, 1891.

LINE.—Gauge, 3ft. 6in.

Strikers.	Platelayers.	Peckers.	Carpenters.	Masons.	Plumbers.	Painters.	Watchmen.	Chainmen.	Engineers.	Timekeepers.	Laborers.	Youths.	Boys.	Total.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	15
—	—	—	—	—	—	—	—	—	—	—	—	—	—	45
—	—	—	—	—	—	—	—	—	—	—	—	—	—	100
—	—	—	—	—	—	—	—	—	—	—	—	—	—	45
—	—	—	—	—	—	—	—	—	—	—	—	—	—	67
—	—	—	—	—	—	—	—	—	—	—	—	—	—	940
—	—	15-46	—	—	—	—	—	—	—	—	—	—	—	15-57
—	—	3-67	—	—	—	—	—	—	—	—	3-73	—	—	7-40
—	—	19-13	—	—	—	—	—	—	—	—	3-73	—	—	35-09
—	—	—	—	—	—	—	—	—	—	—	—	—	—	15
—	—	—	—	—	—	—	—	—	—	—	—	—	—	45
—	—	—	—	—	—	—	—	—	—	—	—	—	—	28
—	—	—	—	—	—	—	—	—	—	—	—	—	—	67
—	—	—	—	—	—	—	—	—	—	—	—	—	—	45
—	—	—	—	—	—	—	—	—	—	—	—	—	—	17
—	—	—	—	—	—	—	—	—	—	—	—	—	—	949
—	—	—	—	—	—	—	—	—	—	—	—	—	—	67
—	—	18-71	—	—	—	—	—	—	—	—	—	—	—	15-82
—	—	5-47	—	—	—	—	—	—	—	—	5-56	—	—	11-03
—	—	—	—	—	—	—	—	—	—	—	—	—	—	01
—	—	19-18	—	—	—	—	—	—	—	—	5-56	—	—	37-14
—	—	36-31	1-50	—	—	—	—	—	—	—	9-29	—	—	72-28

LINE.—Gauge, 5ft. 3in.

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—	—	—	—	—	—	—	—	—	—	—	—	—	—	193
—	—	—	—	—	—	—	—	—	—	—	—	—	—	11
—	—	—	—	—	—	—	—	—	—	—	—	—	—	72
—	—	2-53	—	—	—	—	—	—	—	—	—	—	—	2-54
—	—	3-22	—	—	—	—	—	—	—	—	—	—	—	5-63

ALEX. B. MONCRIEFF, Engineer-in-Chief.

O—No. 47.

ENGINEER

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## NORTHERN SYSTEM.

## PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES.

**A**—RETURN OF AMOUNTS EXPENDED ON **WORKS** OF **CONSTRUCTION** DURING THE YEAR ENDING  
JUNE 30TH, 1891.  
Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State If Completed.
		No.	£ s. d.	
<b>CAPITAL ACCOUNT.</b>				
<i>District No. 1.</i>				
Port Pirie .....	Overhead tank .....	C. 2052	141 18 3	Completed
	Additional pit accommodation .....	5555	63 19 5	Completed
	Parcel room .....	C. 2477	38 1 11	Completed
	Two lamps for goods sheds .....	C. 2535	4 6 10	Completed
	Stop block for loco. siding .....	C. 2623	5 9 5	Completed
	Laying siding and traverser .....	C. 2645	** 69 7 6	Not completed
	Filling up space between wharves .....	C. 2667	80 15 7	Not completed
	Removing loco. office to Petersburg .....	C. 2793	24 14 4	Completed
Crystal Brock .....	Making twelve chains of road .....	C. 2094	151 2 5	Completed
Huddlestone .....	Home and distant signals .....	5318	0 0 10	Completed
Gladstone .....	Cattle siding .....	4879	5 11 10	Completed
	Connecting tank with Beetaloo main .....	C. 2269	29 4 6	Completed
	Water column .....	6654	219 8 10	Not completed
185½ miles .....	Level crossing .....	C. 2211	11 0 7	Completed
Caltowie .....	Draining station yard .....	C. 2728	159 8 7	Completed
Jamestown .....	Enlarging reservoir .....	C. 1784	23 19 9	Completed
	Enlarging tank .....	C. 1960	9 19 1	Completed
	Additional room, &c., stationmaster's residence .....	C. 2306	0 19 0	Completed
	Block bells and instruments .....	6387	27 16 2	Not completed
	Examination of line by Mr. Stewart .....	C. 2812	52 13 8	Not completed
<b>CREDIT—</b>			1,119 18 6	
Port Pirie .....	Laying siding and traverser .....	C. 2645	69 7 6	
<b>Total .....</b>			1,060 11 0	
<i>District No. 2.</i>				
Yongala .....	Verandah to stationmaster's residence .....	C. 2382	7 5 6	Completed
	Approach to wheat siding .....	C. 2561	0 8 1	Not completed
Petersburg .....	Siding to new running shed .....	4020	14 18 9	Completed
	Additions to station .....	4679	39 2 0	Completed
	Additional room to loco. cottage No. 9 .....	C. 2157	1 18 6	Completed
	Additional room to loco. cottage No. 8 .....	C. 2231	3 13 1	Completed
	Transferring engineman's cabin to Mingary .....	C. 2376	22 18 4	Completed
	Electrical fitter's residence .....	5815	491 2 11	Completed
	Stop block on cattle siding .....	C. 2542	2 7 2	Completed
	Venetian shutter to traffic superintendent's residence ..	C. 2650	3 0 0	Completed
	Trial holes for reservoir .....	6253	37 8 2	Completed
	Improving ventilation of waiting-room .....	6363	7 2 7	Completed
	Verandah to loco. cottage No. 8 .....	C. 2709	2 3 11	Completed
	Stove in loco. office .....	C. 2975	3 3 6	Completed
	Sinking well .....	3956	2 4 5	Completed
	Additional rooms to permanent way cottage No. 51 .....	C. 2401	35 15 8	Completed
Near Gumbowie ....	Purchase of land, sec. 158, hundred Yongala .....	C. 2681	59 0 0	Completed
Gumbowie .....	Two lamps .....	C. 2487	4 10 0	Completed
	Additional room to permanent way cottage No. 58 .....	C. 2401	35 15 8	Completed
Terowie .....	Additional room to permanent way cottages No. 60 and 61 ..	C. 2401	71 11 2	Completed
Black Rock .....	Additional room to permanent way cottage No. 65 .....	C. 2401	35 15 7	Completed
	Approach to wheat siding .....	C. 2562	15 4 6	Completed
	Block bells and instruments .....	6387	27 16 2	Not completed
<b>CREDIT—</b>			924 5 8	
Petersburg .....	Fixing ladder in well .....	5684	0 0 7	
<b>Total .....</b>			924 5 1	
<i>District No. 3.</i>				
Orroroo .....	Increased sheep yard accommodation .....	C. 2368	6 5 3	Completed
	Suction pipes at reservoir .....	C. 2361	13 9 8	Not completed
	Approach to wheat siding .....	C. 2563	54 8 6	Completed
	Approach to sheep siding .....	C. 2721	48 3 1	Completed
Eurelia .....	Suction pipes at reservoir .....	C. 2361	13 9 8	Not completed
Carrieton .....	Additional rooms to permanent way cottages Nos. 78, 82 ..	C. 2401	71 11 2	Completed
	Verandah to stationmaster's residence .....	C. 2382	7 5 5	Completed
Hammond .....	Laying siding .....	C. 2624	230 9 2	Completed
	Stationmaster's residence .....	C. 2665	628 2 9	Completed
Quorn .....	Underground tank for district foreman's residence .....	C. 2662	61 4 0	Not completed
	Block bells and instruments .....	6387	27 16 2	Not completed
<b>Total .....</b>			1,162 4 10	

\*\* Credits.

PORT

## PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES—continued.

## A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION, &amp;c.—continued.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	
CAPITAL ACCOUNT—continued.				
District No. 4.				
Dawson-road .....	Fixing float in reservoir .....	5694	10 19 5	Completed
	Shifting station .....	6030	2,226 6 2	Not completed
	Stationmaster's residence and booking office .....	6561	325 16 11	Not completed
	Verandahs to permanent way cottages Nos. 98, 99, 100..	5664	6 17 6	Completed
166 miles .....	Verandahs to permanent way cottages Nos. 101, 102, 103	5664	6 17 5	Completed
Oodlawirra .....	Verandahs to permanent way cottages Nos. 104, 105, 105	5664	6 17 6	Completed
	Erecting goods shed .....	5755	1 1 5	Completed
	Standpipe and meter .....	5789	4 12 7	Completed
	Turnstile .....	6079	2 7 5	Completed
	Approach to gateway .....	6085	11 17 6	Completed
	Removing cottage from Mundoo Island .....	3540	3 9 10	Completed
	Weighbridge .....	4255	12 17 3	Completed
22½ miles to 26 miles	Fencing line .....	6485	351 11 8	Not completed
Nackara .....	Verandahs to permanent way cottages Nos. 107, 108, 109	5664	6 17 6	Completed
	Goods shed .....	5755	1 1 4	Completed
	Completing signals .....	3669	2 12 11	Completed
	Signalman's residence office .....	3709	0 18 8	Completed
	Fixing block posts .....	3710	1 16 10	Completed
185 miles .....	Verandahs to permanent way cottages Nos. 110, 111, 112	5664	6 17 6	Completed
Paratoo .....	Verandahs to permanent way cottages Nos. 113, 114, 115	5664	6 17 6	Completed
	Permanent way cottages water service .....	C. 2384	8 12 11	Completed
	New reservoir .....	6677	0 6 8	Not completed
	Passing siding .....	4007	2 2 3	Completed
198 miles .....	Verandahs to permanent way cottages Nos. 116, 117, 118	5664	6 17 6	Completed
Yunta .....	Verandahs to permanent way cottages Nos. 119, 120, 121	5664	6 17 6	Completed
	Stationmaster's residence .....	5902	564 3 6	Completed
	Footpath and turnstile .....	C. 2492	1 6 5	Completed
	Bathroom to stationmaster's residence .....	6191	18 15 1	Completed
	New reservoir .....	6603	1,204 13 2	Not completed
	Suction pipe for reservoir .....	C. 2854	8 10 0	Completed
	Goods shed .....	4253	222 6 5	Completed
	Crane .....	4254	12 17 3	Completed
210 miles .....	Verandahs to permanent way cottages Nos. 122, 123, 124	5664	6 17 6	Completed
Winnininnie .....	Verandahs to permanent way cottages Nos. 125, 126, 127	5664	6 17 6	Completed
	Signals .....	3980	4 3 9	Completed
	Additions to stationmaster's residence .....	4252	15 5 11	Completed
224 miles .....	Verandahs to permanent way cottages Nos. 128, 129, 130	5664	6 17 6	Completed
Oulnina .....	Additions to stationmaster's residence .....	4521	22 18 8	Completed
	Signals .....	4537	1 4 5	Completed
	Passing siding .....	4009	5 4 2	Completed
Mannahill .....	Additions to refreshment-rooms, &c. ....	4735	60 3 11	Completed
	Ashpit, water column, &c. ....	5833	201 7 10	Completed
	Bathroom at stationmaster's residence .....	6010	13 18 11	Completed
	New reservoir .....	6675	0 6 0	Completed
	Trial holes for reservoirs .....	5760	30 5 9	Completed
	Travelling tank .....	5833	71 16 10	Completed
	Additional reservoirs .....	6481	10 0 4	Completed
	Fencing line .....	6189	240 17 8	Not completed
	Engineering and supervision .....	2493	27 4 10	Completed
	Land compensation .....	2495	13 18 0	Completed
		—	5,795 12 11	
	CREDIT—			
	Refuges on bridges .....	3851	2 1 3	
	Total .....	—	5,793 11 8	
District No. 5.				
240 miles .....	Verandahs to permanent way cottages Nos. 134, 135, 136	5664	6 17 6	Completed
245 miles .....	Block instruments and telephone .....	4011	4 6 7	Completed
	Verandahs to permanent way cottages Nos. 137, 138, 139	5664	6 17 6	Completed
251 miles .....	Verandahs to permanent way cottages Nos. 140, 141, 142	5664	6 17 6	Completed
Olary .....	Verandahs to permanent way cottages Nos. 143, 144, 145	5664	6 17 6	Completed
	New reservoir (Mount Minahan) .....	6604	1,034 17 2	Not completed
262 miles .....	Verandahs to permanent way cottages Nos. 146, 147, 148	5664	6 17 6	Completed
266 miles .....	Passing siding .....	4012	5 1 11	Completed
McDonald's Hill .....	Survey for reservoir .....	5456	3 17 6	Completed
272 miles .....	Verandahs to permanent way cottages Nos. 149, 150, 151	5664	6 17 6	Completed
275 miles .....	Passing siding .....	4014	4 9 10	Completed
277 miles .....	Verandahs to permanent way cottages Nos. 152, 153, 154	5664	6 17 6	Completed
Mingary .....	Verandahs to permanent way cottages Nos. 155, 156, 157	5664	6 17 6	Completed
	Ashpit .....	5735	32 9 11	Completed
	New reservoir .....	6676	0 8 3	Not completed
290 miles .....	Verandahs to permanent way cottages Nos. 158, 159, 160	5664	6 17 6	Completed
Mutooroo .....	Passing siding .....	4619	4 1 4	Completed
Cockburn .....	Verandahs to permanent way cottages Nos. 161, 162, 163	5664	6 17 6	Completed
	Extension of engine shed .....	5346	4 11 6	Completed
	Additional office accommodation .....	5730	11 12 2	Completed
	Laying water service to permanent way cottages .....	C. 2384	8 12 11	Completed

PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES—*continued.*A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION, &c.—*continued.*

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	
CAPITAL ACCOUNT— <i>continued.</i>				
District No. 5— <i>continued.</i>				
	Underground tank .....	5812	1 14 0	Not completed
	Additional sidings .....	C. 2481	228 15 3	Completed
	Cellar and water to district foreman's residence .....	C. 2619	50 8 2	Completed
	Loco. barracks .....	6383	0 16 0	Not completed
	Cellar at stationmaster's residence .....	C. 2694	25 6 11	Completed
	Standpipe .....	C. 2719	33 8 8	Completed
	Maintenance cottage .....	6439	413 13 4	Not completed
	Extension of coal siding .....	6498	204 8 11	Not completed
	Loco. cottages .....	6531	330 2 7	Not completed
	Laying water service to Customs quarters .....	C. 2852	6 11 3	Not completed
	Trial holes for reservoirs .....	5760	30 6 9	Completed
	Travelling tank .....	5833	71 16 9	Completed
	Additional reservoirs .....	6481	10 0 3	Completed
	Fencing line .....	6189	240 17 7	Completed
	General engineering and supervision .....	C. 2493	27 4 9	Completed
			2,858 9 3	
CREDITS—				
Mutooroo .....	Transferring block instruments .....	4960	37 16 0	
	Refuges to bridges .....	3351	2 1 3	
			39 17 3	
	Total .....	—	2,818 12 0	
	Aggregate total, £11,749 4s. 7d.			
Miscellaneous.				
	Repairing travelling crane .....	C. 2438	6 0 10	Completed
	Trial of weeding machine .....	C. 2112	200 0 0	Completed
	Preliminary survey—Testing colonial timbers .....	6262	0 14 0	Completed
	Total .....	—	206 14 10	

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

B—DESCRIPTION OF EXTRAORDINARY WORKS OF REPAIRS AND RENEWALS FOR THE YEAR  
ENDING JUNE 30th, 1891.

Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
MAINTENANCE AND RENEWAL ACCOUNT.				
District No. 1.				
Port Pirie .....	† Repairing points .....	C. 2354	0 6 11	Completed
	† Repairing points .....	C. 2479	** 1 10 6	Completed
	† Repairing points .....	C. 2549	** 4 14 6	Completed
	† Repairing points .....	C. 2560	** 0 8 8	Completed
	† Repairing points .....	C. 2659	** 0 16 3	Completed
	† Repairing points .....	C. 2672	** 0 14 5	Completed
	† Repairing points .....	C. 2685	** 0 7 6	Completed
	† Repairing points .....	C. 2686	** 0 8 7	Completed
	† Repairing points .....	C. 2724	8 16 11	Completed
	† Repairing points .....	C. 2780	** 0 3 6	Completed
	† Repairing points .....	C. 2509	27 7 10	Completed
	† Repairing cheese knob .....	C. 2524	** 0 18 8	Completed
	† Repairing cheese knob .....	C. 2823	** 0 8 6	Completed
	† Repairing scotch blocks .....	C. 2509	0 8 0	Completed
	Removing cross-over road .....	C. 2674	44 14 4	Completed
	Repairing sidings .....	C. 2693	** 20 1 3	Completed
	† Repairing stock rail .....	C. 2599	** 0 19 3	Completed
	† Repairing turntable .....	C. 2779	** 0 3 0	Completed
	Relaying second line, Ellen-street .....	C. 2325	429 9 1	Not completed
	Raising Ellen-street .....	C. 2829	676 6 3	Completed
	Blinding station yard .....	C. 2466	3 5 0	Completed
	† Repairing fence .....	C. 2886	** 0 5 3	Completed
Warnertown .....	† Repairing scotch blocks .....	C. 2599	0 6 0	Completed
Warnertown to Gladstone .....	† Repairing line .....	C. 2565	15 19 11	Completed
Crystal Brook .....	Concrete wall at bridge .....	C. 2574	33 19 10	Completed
	† Repairing scotch blocks .....	C. 2509	0 9 8	Completed
	† Repairing cheese knob .....	C. 2509	0 7 8	Completed
Gladstone .....	† Repairing cheese knob .....	C. 2867	3 0 3	Completed
	† Filling scour at reservoir .....	C. 2578	13 5 1	Completed
	† Repairing points .....	C. 2509	0 14 10	Completed
186 to 187 miles ....	† Repairing line .....	C. 2913	18 17 2	Not completed

\*\* Credits.

\* Re-imbusement.

† Damage by accident.

‡ Damage by floods.

PORT

## PORT PIRIE, TEROWIE, QUORN, AND COCKBURN LINES—continued.

## B—DESCRIPTION OF EXTRAORDINARY WORKS, &amp;c.—continued.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	
MAINTENANCE AND RENEWAL ACCOUNT—continued.				
District No. 1—continued.				
Caltowie .....	†Repairing scotch block .....	C. 2509	0 6 0	Completed
Jamestown .....	†Repairing points .....	C. 2509	1 16 10	Completed
	Relaying curves .....	C. 2320	**312 0 3	
	Altering side drains .....	C. 2641	58 13 11	Not completed
	Flooring culverts with old rails .....	C. 2824	109 9 8	Not completed
Whole district .....	Draughtsmen's salaries, head office .....	C. 2503	39 12 0	
			1,831 14 3	
CREDITS —				
Port Pirie .....	Repairing points .....	Various	9 3 11	
	Repairing cheese knobs .....	C. 2524	0 18 8	
	Repairing stock rail .....	C. 2823	0 8 6	
	Repairing turntable .....	C. 2599	0 19 3	
	Repairing fence .....	C. 2779	0 8 0	
	Repairing sidings .....	C. 2886	0 5 3	
Jamestown .....	Relaying curves .....	C. 2693	20 1 3	
		C. 2320	497 17 3	
			530 2 1	
Total .....		—	1,301 12 2	
District No. 2.				
Petersburg .....	†Repairing points .....	C. 2509	19 13 1	Completed
	†Repairing scotch blocks .....	C. 2509	0 14 7	Completed
	†Repairing signals .....	C. 2509	0 1 11	Completed
	Whitening roofs of resident engineer's and traffic superintendent's residences .....	C. 2285	3 13 11	Completed
	Water service to traffic superintendent's residence .....	C. 2474	7 1 11	Completed
	†Repairing door of engine shed .....	C. 2499	1 19 0	Completed
	Removing galvanized iron shed .....	C. 2632	5 6 1	Completed
	Enclosing verandah, resident engineer's residence .....	C. 2729	3 2 7	Completed
	Altering distant signal .....	C. 2733	1 1 3	Completed
Gumbowie .....	†Repairing interlocking gear .....	C. 2509	0 3 9	Completed
162 miles (Quorn line) .....	†Repairing fence .....	C. 2863	**1 9 0	Completed
Black Rock .....	†Repairing points .....	C. 2509	0 4 0	Completed
	†Repairing line .....	C. 2316	175 1 6	Completed
	†Repairing line .....	C. 2374	24 2 7	Completed
Whole district .....	Draughtsmen's salaries, head office .....	C. 2503	34 1 1	
			277 16 3	
CREDIT—				
162 miles (Quorn line) .....	Repairing fence .....	C. 2863	1 9 0	
Total .....		—	276 7 3	
District No. 3.				
Orroroo .....	Laying water service to stationmaster's bathroom .....	C. 2883	0 17 2	Not completed
Orroroo to Quorn .....	Removing warning boards .....	C. 2534	29 6 9	Not completed
Eurelia .....	Repairing overflow of reservoir .....	C. 2258	0 3 4	Completed
Hammond .....	Earthclosets to permanent way cottages .....	C. 2603	2 17 2	Completed
	†Repairing points .....	C. 2509	0 14 10	Completed
Bruce .....	Metalling entrance to station yard .....	C. 2483	32 1 8	Completed
Whole district .....	Draughtsmen's salaries, head office .....	C. 2503	36 8 3	
Total .....		—	102 9 2	
District No. 4.				
Dawson-road .....	†Repairing points .....	C. 2509	1 14 7	Completed
	Cutting heads of fishbolts .....	C. 2827	51 16 2	Not completed
Nackara .....	†Repairing points .....	C. 2509	1 0 9	Completed
	Replacing stop valve .....	C. 2684	3 16 10	Completed
	Altering overflow of reservoir .....	C. 2828	52 1 11	Completed
Paratoo .....	†Repairing points .....	C. 2509	4 2 2	Completed
	†Repairing points .....	C. 2727	0 19 6	Completed
	†Repairing line .....	C. 2356	6 0 3	Completed
Whole district .....	Draughtsmen's salaries, head office .....	C. 2503	47 7 3	
Total .....		—	168 19 5	
District No. 5.				
Olary .....	†Repairing points .....	C. 2509	0 12 6	Completed
	†Repairing points .....	C. 2683	0 19 1	Completed
McDonald's Hill .....	†Repairing points .....	C. 2539	4 19 7	Completed
272 miles .....	†Repairing damage .....	C. 2842	43 11 6	Not completed
Cutana .....	†Repairing points .....	C. 2533	5 1 11	Completed
Mingary .....	Raising telegraph wire over siding .....	C. 2734	4 3 3	Completed
	†Repairing points .....	C. 2509	2 4 0	Completed
Cockburn .....	†Repairing engine shed .....	C. 2509	3 13 9	Completed
Whole district .....	Draughtsmen's salaries, head office .....	C. 2503	38 9 8	
Total .....		—	103 15 3	
Aggregate total, £1,953 3s. 3d.				

\*\* Credits.

† Damaged by accident.

‡ Damaged by floods.

Adelaide, June 30th, 1891.

No. 47.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

ENGINEER-IN-CHIEF'S  
PORT PIRIE, TEROWIE, QUORN,  
**C**—RETURN OF COST OF WORKS OF MAINTENANCE  
MAINTENANCE AND  
Gauge,

ORDINARY AND CURRENT REPAIRS.										
Mileage.	Sub-head.	Contract.	Labor.	Stores and Material.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	
DISTRICT No. 1.										
Main line..... 58m. 75c.	General expenses—	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
Sidings..... 11m. 18c.	Engineering and supervision...	6 14 2	532 13 8	19 0 1	—	—	—	558 7 11	7 19 2	—
Double switches, No. 14	Sick and recreation leave.....	—	130 0 3	—	—	—	—	130 0 3	1 17 1	—
Single switches, No. 114	Way .....	47 2 0	3,413 15 4	1,783 18 9	36 4 4	33 4 6	178 14 9	5,492 9 8	78 5 6	—
	Works .....	19 0 9	610 3 2	116 16 8	—	—	—	746 0 7	10 12 7	—
	Buildings .....	99 1 4	173 15 7	44 16 0	—	—	—	317 12 11	4 10 6	—
	Rolling-stock .....	1 14 0	25 1 6	35 12 3	—	—	—	62 7 9	0 17 9	—
	Machinery, tools, &c. ....	3 3 5	43 1 0	15 0 7	—	—	—	61 5 0	0 17 5	—
	Water, fuel, &c. ....	46 11 8	92 17 7	6 12 9	—	—	—	146 2 0	2 1 8	—
	Gross total .....	223 7 4	5,021 8 1	2,021 17 1	36 4 4	33 4 6	178 14 9	7,514 16 1	107 1 8	—
	Reimbursements .....	—	—	128 9 11	—	—	—	128 9 11	1 16 7	—
	Net total .....	223 7 4	5,021 8 1	1,893 7 2	36 4 4	33 4 6	178 14 9	7,386 6 2	105 5 1	—
DISTRICT No. 2*.										
Main line..... 55m. 30c.	General expenses—	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
Sidings..... 4m. 64c.	Engineering and supervision...	5 15 0	455 10 0	16 7 6	—	—	—	477 12 6	7 18 9	—
Double switches, No. 4	Sick and recreation leave.....	—	123 2 5	—	—	—	—	123 2 5	2 0 11	—
Single switches, No. 59	Way .....	0 5 0	2,334 14 0	267 9 8	42 11 7	1 3 6	20 11 0	2,866 14 9	47 12 8	—
	Works .....	55 7 5	457 7 4	33 0 4	—	—	—	545 15 1	9 1 5	—
	Buildings .....	144 3 2	96 9 4	35 16 4	—	—	—	276 8 10	4 11 11	—
	Rolling-stock .....	4 12 11	33 0 7	62 16 7	—	—	—	100 10 1	1 13 5	—
	Machinery, tools, &c. ....	6 19 2	88 5 6	32 8 4	—	—	—	127 13 0	2 2 5	—
	Water, fuel, &c. ....	0 18 0	17 1 6	1 19 6	—	—	—	19 19 0	0 6 8	—
	Gross total .....	218 0 8	3,805 10 8	449 18 3	42 11 7	1 3 6	20 11 0	4,537 15 8	75 8 2	—
	Reimbursements .....	—	—	9 12 10	—	—	—	9 12 10	0 3 3	—
	Net total .....	218 0 8	3,805 10 8	440 5 5	42 11 7	1 3 6	20 11 0	4,528 2 10	75 4 11	—
DISTRICT No. 3.										
Main line..... 60m. 17c.	General expenses—	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
Sidings..... 4m. 9c.	Engineering and supervision...	0 3 2	487 15 4	17 10 8	—	—	—	511 9 2	7 19 0	—
Double switches, No. 14	Sick and recreation leave.....	—	120 1 6	—	—	—	—	120 1 6	1 17 4	—
Single switches, No. 21	Way .....	—	2,608 8 9	328 0 4	30 17 0	2 1 6	61 4 9	3,031 12 4	47 2 8	—
	Works .....	—	430 7 2	21 2 10	—	—	—	451 10 0	7 0 5	—
	Buildings .....	1 11 6	68 10 5	25 9 6	—	—	—	93 11 5	1 9 1	—
	Rolling-stock .....	—	33 6 0	15 2 1	—	—	—	48 1 1	0 15 1	—
	Machinery, tools, &c. ....	—	14 4 6	10 9 6	—	—	—	24 14 0	0 7 8	—
	Water, fuel, &c. ....	0 13 0	29 16 6	1 14 8	—	—	—	32 4 2	0 10 0	—
	Gross total .....	8 7 8	3,790 10 2	419 9 7	30 17 0	2 1 6	62 4 9	4,313 10 8	67 1 2	—
	Reimbursements .....	—	—	2 16 5	—	—	—	2 16 5	0 0 11	—
	Net total .....	8 7 8	3,790 10 2	416 13 2	30 17 0	2 1 6	62 4 9	4,310 14 3	67 0 3	—
DISTRICT No. 4.										
Main line..... 79m. 36c.	General expenses—	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
Sidings..... 4m. 18c.	Engineering and supervision...	8 1 0	637 14 0	21 18 6	—	—	—	667 13 6	7 19 7	—
Double switches, No. 44	Sick and recreation leave.....	—	118 3 10	—	—	—	—	118 3 10	1 8 3	—
Single switches, No. 44	Way .....	—	3,191 11 2	25 17 1	25 3 3	0 1 11	13 2 6	3,255 15 11	35 18 2	—
	Works .....	0 1 0	385 0 2	4 11 9	—	—	—	389 12 11	4 13 2	—
	Buildings .....	5 4 1	155 12 0	91 11 11	—	—	—	252 8 0	3 0 4	—
	Rolling-stock .....	0 6 6	23 5 10	12 14 4	—	—	—	36 6 8	0 8 8	—
	Machinery, tools, &c. ....	1 0 9	214 12 7	51 16 10	—	—	—	267 10 2	3 3 11	—
	Water, fuel, &c. ....	44 5 0	96 4 6	0 13 4	—	—	—	141 2 10	1 13 9	—
	Gross total .....	58 18 4	4,822 4 1	209 3 9	25 8 3	0 1 11	13 2 6	5,128 13 10	61 5 10	—
	Reimbursements .....	—	—	5 2 8	—	—	—	5 2 8	0 1 2	—
	Net total .....	58 18 4	4,822 4 1	204 1 1	25 8 3	0 1 11	13 2 6	5,123 11 2	61 4 8	—
DISTRICT No. 5.										
Main line..... 65m. 26c.	General expenses—	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
Sidings..... 2m. 67c.	Engineering and supervision...	6 7 11	513 0 10	19 12 7	—	—	—	539 1 4	7 18 2	—
Double switches, No. 1	Sick and recreation leave.....	—	83 3 11	—	—	—	—	83 3 11	1 4 5	—
Single switches, No. 29	Way .....	0 8 0	2,970 4 8	142 16 0	19 2 2	16 5 0	65 6 6	3,214 2 4	47 3 2	—
	Works .....	8 17 10	767 18 0	10 6 11	—	26 19 4	136 3 6	950 5 7	13 18 10	—
	Buildings .....	4 6 3	40 5 8	25 2 8	—	—	—	69 14 7	1 0 6	—
	Rolling-stock .....	0 14 0	23 4 4	16 4 11	—	—	—	40 8 3	0 11 9	—
	Machinery, tools, &c. ....	0 1 8	138 11 5	34 19 6	—	—	—	173 12 7	2 10 11	—
	Water, fuel, &c. ....	6 0 0	43 10 4	0 0 7	—	—	—	49 10 11	0 14 6	—
	Gross total .....	26 15 8	4,579 19 2	249 3 2	19 2 2	43 4 4	201 10 0	5,119 14 6	75 2 3	—
	Reimbursements .....	—	—	3 19 4	—	—	—	3 19 4	0 1 2	—
	Net total .....	26 15 8	4,579 19 2	245 8 10	19 2 2	43 4 4	201 10 0	5,115 15 2	75 1 1	—
SUM										
Main line..... 319m. 24c.	General expenses—	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
Sidings..... 27m. 17c.	Engineering and supervision...	33 1 3	2,026 13 10	94 9 4	—	—	—	2,754 4 5	7 19 0	—
Double switches, No. 33	Sick and recreation leave.....	—	574 11 11	—	—	—	—	574 11 11	1 13 2	—
Single switches, No. 267	Way .....	47 15 0	14,718 18 11	2,348 1 10	153 18 4	52 16 5	339 19 6	17,861 5 0	51 10 11	—
	Works .....	83 7 0	2,650 15 10	185 18 6	—	26 19 4	136 3 6	3,083 4 2	8 17 11	—
	Buildings .....	254 6 4	532 13 0	222 16 5	—	—	—	1,069 15 9	2 18 3	—
	Rolling-stock .....	7 7 5	137 18 3	142 10 2	—	—	—	287 15 10	0 16 7	—
	Machinery, tools, &c. ....	11 5 0	498 15 0	144 14 9	—	—	—	634 14 9	1 17 10	—
	Water, fuel, &c. ....	98 7 8	279 10 5	11 0 10	—	—	—	388 18 11	1 2 8	—
	Gross total .....	535 9 8	22,019 12 2	3,349 11 10	153 18 4	79 15 9	476 3 0	26,814 10 9	76 16 1	—
	Reimbursements .....	—	—	150 1 2	—	—	—	150 1 2	0 8 8	—
	Net total .....	535 9 8	22,019 12 2	3,199 10 8	153 18 4	79 15 9	476 3 0	26,664 9 7	76 7 5	—

\* The total cost of Terowie Station yard is

NOTE.—The Aggregate Total shown in the Return is the Actual Expenditure incurred during the year. That shown on the Return furnished by the Adelaide, June 30th, 1891.

## DEPARTMENT.

AND COCKBURN LINES—continued.

AND RENEWAL FOR THE YEAR ENDING JUNE 30TH, 1891.

RENEWAL ACCOUNT.

3ft. 6in.

EXTRAORDINARY REPAIRS AND RENEWALS.								TOTALS.		
Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	AGGREGATE TOTAL.	Average Cost per Mile of Single Line, including Sidings.	Average Cost per Mile of Railway.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
—	35 12 0	—	—	—	—	35 12 0	0 11 3	597 19 11	8 10 3	10 2 11
30 19 0	623 3 8	140 7 5	—	12 12 11	93 4 3	900 7 3	12 16 7	6,393 6 11	91 2 1	108 9 6
15 6 4	482 7 1	379 5 3	—	1 3 3	—	878 1 11	12 10 3	1,624 2 6	23 2 10	27 11 2
—	—	—	—	—	—	—	—	317 12 11	4 10 6	5 7 10
—	0 8 9	—	—	—	—	0 8 0	0 0 2	62 7 9	0 17 9	1 1 2
10 2 10	3 2 3	—	—	—	—	13 5 1	0 3 9	61 13 0	0 17 7	1 0 9
—	—	—	—	—	—	—	—	159 7 1	2 5 5	2 14 1
56 8 2	1,148 13 0	519 12 8	—	13 16 2	93 4 3	1,431 14 3	26 2 0	9,346 10 4	133 3 8	158 11 7
0 7 0	20 1 1	509 14 0	—	—	—	530 2 1	7 11 1	658 12 0	9 7 8	11 3 6
56 1 2	1,123 11 11	9 18 8	—	13 16 2	93 4 3	1,301 12 2	18 10 11	8,687 18 4	123 16 0	147 8 1
—	34 1 1	—	—	—	—	34 1 1	0 11 4	511 13 7	8 10 1	9 4 9
11 11 0	6 8 2	2 0 11	—	—	—	20 0 1	0 6 8	123 2 5	2 0 11	2 4 6
—	70 4 6	91 18 4	—	4 1 3	34 9 0	200 13 1	3 6 8	2,896 14 10	47 19 4	52 2 7
0 17 8	14 3 11	6 1 11	—	—	—	21 3 6	0 7 0	746 8 2	12 8 1	13 9 7
—	—	—	—	—	—	—	—	297 12 4	4 18 11	5 7 6
0 5 0	1 11 3	0 2 3	—	—	—	1 18 6	0 0 8	100 10 1	1 13 5	1 16 4
—	—	—	—	—	—	—	—	129 11 6	2 3 1	2 6 10
—	—	—	—	—	—	—	—	19 19 0	0 6 8	0 7 2
12 13 8	126 8 11	100 3 5	—	4 1 3	34 9 0	277 16 3	4 12 4	4,815 11 11	80 0 6	66 19 3
—	1 1 0	0 8 0	—	—	—	1 9 0	0 0 5	11 1 10	0 3 8	0 4 0
12 13 8	125 7 11	99 15 5	—	4 1 3	34 9 0	276 7 3	4 11 11	4,804 10 1	79 16 10	86 15 3
—	36 8 3	—	—	—	—	36 8 3	0 11 4	547 17 5	8 10 4	9 2 0
—	0 12 8	—	—	—	—	0 12 8	—	120 1 6	1 17 4	1 19 11
31 6 8	29 18 3	0 3 6	—	—	—	61 8 5	0 0 2	3,032 5 0	47 2 9	50 7 2
0 4 5	2 3 0	1 9 1	—	—	—	3 16 6	0 19 1	512 18 5	7 19 6	8 10 4
—	—	—	—	—	—	—	0 1 2	97 7 11	1 10 3	1 12 4
—	—	—	—	—	—	—	—	48 8 1	0 15 1	0 16 1
—	0 3 4	—	—	—	—	0 3 4	0 0 1	24 14 0	0 7 8	0 8 3
—	—	—	—	—	—	—	—	32 7 6	0 10 1	0 10 9
31 11 1	69 5 6	1 12 7	—	—	—	102 9 2	1 11 10	4,415 19 10	68 13 0	73 6 10
—	—	—	—	—	—	—	—	2 16 5	0 0 11	0 0 11
31 11 1	69 5 6	1 12 7	—	—	—	102 9 2	1 11 10	4,413 3 5	68 12 1	73 5 11
—	47 7 3	—	—	—	—	47 7 3	0 11 4	715 0 9	8 10 11	8 19 17
0 19 6	18 15 0	39 18 8	—	—	—	59 13 2	0 14 3	118 3 10	1 8 3	1 9 9
—	—	—	—	—	6 0 3	6 0 3	0 1 5	3,315 9 1	39 12 5	41 14 7
—	—	—	—	—	—	—	—	395 13 2	4 14 7	4 19 7
—	—	—	—	—	—	—	—	252 8 0	3 0 4	3 3 7
19 10 0	32 11 0	3 13 9	—	0 1 0	—	55 18 9	0 13 4	36 6 8	0 8 8	0 9 2
—	—	—	—	—	—	—	—	267 10 2	3 3 11	3 7 4
20 9 6	98 16 3	43 12 5	—	0 1 0	6 0 3	168 19 5	2 0 4	197 1 7	2 7 1	2 9 8
—	—	—	—	—	—	—	—	5,297 13 3	63 6 2	66 13 7
20 9 6	98 16 3	43 12 5	—	0 1 0	6 0 3	168 19 5	2 0 4	5 2 8	0 1 2	0 1 4
—	—	—	—	—	—	—	—	5,292 10 7	63 5 0	66 12 3
—	38 9 8	—	—	—	—	38 9 8	0 11 4	577 11 0	8 9 6	8 16 10
1 15 0	6 0 6	6 16 7	—	—	—	12 17 1	0 3 9	83 3 11	1 4 5	1 5 6
3 5 9	41 5 10	0 13 0	—	0 10 8	—	43 11 6	0 12 9	3,226 19 5	47 6 11	49 7 11
4 3 3	—	—	—	—	—	4 13 9	0 1 4	993 17 1	14 11 7	15 4 3
—	—	—	—	—	—	—	—	74 8 4	1 1 10	1 2 10
—	—	—	—	—	—	—	—	40 3 3	0 11 9	0 12 4
—	—	—	—	—	—	—	—	177 15 10	2 12 2	2 14 5
—	—	—	—	—	—	—	—	49 10 11	0 14 6	0 15 2
9 4 0	86 11 0	7 9 7	—	0 10 8	—	103 15 3	1 10 5	5,223 9 9	76 12 8	79 19 8
—	—	—	—	—	—	—	—	3 19 4	0 1 2	0 1 3
9 4 0	86 11 0	7 9 7	—	0 10 8	—	103 15 3	1 10 5	5,219 10 5	76 11 6	79 18 0

## MARY.

—	195 18 3	—	—	—	—	195 18 3	0 11 4	2,950 2 8	8 10 4	9 4 9
43 9 6	655 0 0	169 3 7	—	12 12 11	93 4 3	993 10 3	2 17 4	574 11 11	1 13 0	1 16 0
48 8 0	623 15 8	471 7 1	—	5 15 2	40 9 3	1,189 15 2	3 8 8	18,854 15 3	54 8 3	59 1 0
4 7 10	17 1 11	8 4 0	—	—	—	29 13 9	0 1 9	4,272 19 4	12 6 7	13 7 8
—	—	—	—	—	—	—	—	1,039 9 6	3 0 0	3 5 1
4 8 3	1 19 3	0 2 3	—	—	—	6 9 9	0 0 4	287 15 10	0 16 7	0 18 0
29 12 10	35 19 7	3 13 9	—	0 1 0	—	69 7 2	0 4 0	661 4 6	1 18 2	2 1 5
—	—	—	—	—	—	—	—	458 6 1	1 6 5	1 8 9
130 6 5	1,529 14 8	672 10 8	—	18 9 1	133 13 6	2,484 14 4	7 3 5	29,099 5 1	83 19 6	91 2 8
0 7 0	21 2 1	510 2 0	—	—	—	531 11 1	1 10 8	681 12 3	1 19 4	2 2 8
129 19 5	1,503 12 7	162 8 8	—	18 9 1	133 13 6	1,958 3 3	5 12 9	28,417 12 10	82 0 2	89 0 0

included in District No. 3, Midland System.

Comptroller is the Net Expenditure brought to Debit during the Year. This accounts for the apparent discrepancy between the two Returns.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

No. 47.

ENGINEER.



D—RETURN OF PERMANENT WAY MATERIAL USED IN MAINTENANCE

No. of District.	Brand.	Rails Used.										Brand.	Rails Removed.									
		Weight.	Length.	Iron Rails.				Steel Rails.					Weight.	Length.	Iron Rails.				Steel Rails.			
				Broken.	Defective.	Worn out.	Total.	Broken.	Defective.	Worn out.	Total.				Broken.	Defective.	Worn out.	Total.				
lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.	No.	lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.		
ORDINARY REPAIRS																						
1	No brand kept .....	40	—	1	—	931	932	—	—	—	—	Blaenavon .....	40	—	1	—	289	290	—	—	—	—
												T. J. & Co. ....	40	—	—	—	470	470	—	—	—	—
												Hopkins, Gilkes, & Co. ....	40	—	—	—	172	172	—	—	—	—
2	No brand kept .....	40	—	—	—	101	101	—	—	—	—	Hopkins, Gilkes, & Co. ....	40	—	—	—	101	101	—	—	—	—
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4	Barrow Steel T. & P. Ry., 1880	41	22 0	—	—	—	—	1	—	—	1	Krupp & Co. ....	41	—	—	—	—	—	1	—	1	1
5	Barrow Steel T. & P. Ry., 1880	41	22 0	—	—	—	—	1	1	—	2	Krupp & Co. ....	41	—	—	—	—	—	1	1	—	2
	Totals .....	—	—	1	—	1,032	1,033	2	1	—	3	—	—	—	1	—	1,032	1,033	2	1	1	3
EXTRAORDINARY REPAIRS																						
1	No brand kept .....	40	—	3	—	—	3	—	—	—	—	T. J. & Co. ....	40	—	3	—	—	3	—	—	—	—
	Barrow Steel T. & P. Ry., 1880	41	—	—	—	—	—	1	—	69	70	Hopkins, Gilkes, & Co. ....	41	—	—	—	—	—	1	—	69	70
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Totals .....	—	—	3	—	—	3	1	—	69	70	—	—	—	3	—	—	3	1	—	69	70

Adelaide, June 30th, 1891.

DEPARTMENT.  
AND COCKBURN LINES—continued.  
OF PERMANENT WAY FOR THE YEAR ENDING JUNE 30TH 1891.

Rails Reversed.		Switches.						Crossings.						Fastenings.				Sleepers.							Ballast, cub. yds.
Iron.	Steel.	Complete Switch.	Stock Rails.	Switch Blades.	Chairs.	Levers.	Connecting Rods or Spreaders	Crossings, Complete.	Wing Rails.	Frog Rails.	Guard Rails.	Blocks.	Bolts.	Fishplates.	Fishbolts.	Dogsplikes.	Fangbolts.	Redgum.	Jarrah.	Bluegum.	Sugar gum.	Kerri.	Other timber.	Long Sleepers.	
No.	No.	Set.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
418	—	2	—	—	1	1	—	11	—	—	—	—	—	142	2,182	15822	103	518	—	—	2,925	—	2	—	4,242
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	1	5	—	—	—	—	—	—	—	—	—	636	1,995	—	79	3	—	37	—	8	—	1,038
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	297	560	—	271	—	—	704	—	124	—	1,399
—	—	—	—	—	11	—	—	—	—	—	—	—	—	—	62	48	16	—	6	16	—	5	—	7	—
—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	45	6	48	—	16	2	—	5	—	8	573
418	—	2	—	1	18	1	—	11	—	—	—	—	—	249	3,169	18441	103	885	21	—	3,676	—	149	—	7,253

AND RENEWALS.																										1,409
6	—	—	—	—	12	3	—	6	—	—	—	20	22	684	869	5,553	102	—	—	—	311	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	530
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	120
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,120	44	—	—	16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—
6	—	—	—	—	12	3	—	6	—	—	—	20	22	686	2,969	5,599	102	—	18	—	311	—	—	—	—	2,050

ALEX. B. MONCRIEFF, Engineer-in-Chief.

**E**-STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION OF  
Gauge,

	Rate of Pay.	Resident Engineer.	Resident Engineer's Assistant.	Surveyors.	Draughtsmen.	Clerks.	District Foremen.	Foremen Works and Buildings.	Gaugers.	Fitters.
DISTRICT NO. 1. Length. Main line..... 58m. 75ch. Sidings..... 11m. 19ch. Total..... 70m. 14ch.	\$450 per annum ..... \$200   " ..... \$180   " ..... \$110   " ..... 14/- per diem ..... 12/-   " ..... 11/-   " ..... 10/6   " ..... 10/-   " ..... 9/-   " ..... 8/-   " ..... 7/8   " ..... 7/3   " ..... 7/-   " ..... 6/6   " ..... 6/-   " .....	20 18 19 19 19 19 19 19 19 19 19 19 19 19 19 19	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19
	Total.....	20	18	19	19	41	1 03	01	10 62	19
DISTRICT NO. 2. Length. Main line..... 55m. 30ch. Sidings..... 4m. 64ch. Total..... 60m. 14ch.	\$450 per annum ..... \$200   " ..... \$180   " ..... \$110   " ..... 14/- per diem ..... 12/-   " ..... 11/-   " ..... 10/6   " ..... 10/-   " ..... 9/-   " ..... 8/-   " ..... 7/8   " ..... 7/3   " ..... 7/-   " ..... 6/6   " ..... 6/-   " .....	20 18 19 19 19 19 19 19 19 19 19 19 19 19 19 19	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19
	Total.....	20	19	19	19	40	1 03	01	9 31	07
DISTRICT NO. 3 Length. Main line..... 60m. 17ch. Sidings..... 4m. 9ch. Total..... 64m. 26ch.	\$450 per annum ..... \$200   " ..... \$180   " ..... \$110   " ..... 15/- per diem ..... 14/-   " ..... 13/-   " ..... 11/8   " ..... 10/6   " ..... 10/-   " ..... 9/-   " ..... 8/-   " ..... 7/8   " ..... 7/3   " ..... 7/-   " ..... 6/6   " ..... 6/-   " .....	20 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18
	Total.....	20	18	18	18	40	1 05	01	9 99	19
DISTRICT NO. 4. Length. Main line..... 79m. 36ch. Sidings..... 4m. 18ch. Total..... 83m. 54ch.	\$450 per annum ..... \$200   " ..... \$180   " ..... \$110   " ..... 16/- per diem ..... 14/-   " ..... 13/-   " ..... 10/6   " ..... 10/-   " ..... 9/-   " ..... 8/-   " ..... 7/8   " ..... 7/3   " ..... 7/-   " ..... 6/6   " ..... 6/-   " ..... 3/-   " .....	20 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18
	Total.....	20	18	18	18	40	1 03	01	14 60	21
DISTRICT NO. 5. Length. Main line..... 65m. 28ch. Sidings..... 2m. 67ch. Total..... 68m. 13ch.	\$450 per annum ..... \$200   " ..... \$180   " ..... \$110   " ..... 14/- per diem ..... 13/-   " ..... 12/-   " ..... 10/6   " ..... 10/-   " ..... 9/-   " ..... 8/-   " ..... 7/8   " ..... 7/3   " ..... 7/-   " ..... 6/6   " ..... 6/-   " .....	20 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18
	Total.....	20	18	18	18	40	1 02	01	10 42	14
SUMMARY. Main line..... 319m. 24ch. Sidings..... 27m. 17ch. Total..... 346m. 41ch.	Total.....	20	18	18	18	40	1 02	01	10 42	14
	Total No. Men .....	1 00	91	92	19	2 01	5 07	05	55 14	42

Adelaide, June 30th, 1891.



## ENGINEER-IN-CHIEF'S DEPARTMENT.

## GREAT NORTHERN LINE.

**A**—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION DURING THE YEAR ENDING JUNE 30TH, 1891.

Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	
<b>CAPITAL ACCOUNT.</b>				
<i>District No. 1.</i>				
Port Augusta .....	Two urinals on wharf .....	5855	12 9 1	Completed
	Box drain to carry off waste water .....	6057	4 0 2	Completed
	Additions to traffic superintendent's office .....	pt. C. 2310	24 2 5	Not completed
	Fixing weighing machine in goods shed .....	C. 2668	1 15 10	Completed
	Asphalting platform and providing exit for luggage .....	C. 2696	45 0 1	Not completed
Pichi Richi Pass ....	Deviation at 11m. 55c. ....	pt. C. 2717	176 6 7	Not completed
Quorn .....	Removal of turntable .....	6689	10 7 5	Not completed
	New turntable, Quorn workshops .....	pt. C. 1372	773 7 9	Completed
	Additions to loco. foreman's residence .....	pt. C. 2482	124 19 3	Completed
	Cupboard in resident engineer's house .....	C. 2837	5 8 7	Completed
	Gate and slip panel to loco. cottages .....	C. 2837	10 19 6	Completed
		C. 2745		
		to		
	Laying water services .....	C. 2762	* 71 11 1	Completed
		C. 2818		
		to		
		C. 2820		
Wilson .....	Weighbridge and office .....	C. 2697	208 1 11	Completed
Wilson and Hawker..	Underground tanks at maintenance cottages .....	pt. C. 2377	42 1 7	Not completed
Hawker .....	Suction pipes at reservoir .....	pt. C. 2362	11 17 1	Not completed
	Forming and metalling approach to goods shed .....	pt. C. 2634	62 18 5	Not completed
	Venetian shutters at stationmaster's house .....	pt. C. 2741	6 9 4	Not completed
	Additional rooms to maintenance cottages .....	pt. C. 2402	89 3 0	Not completed
Whole district .....	Shifting mileposts and rechaining line .....	pt. 4325	2 0 0	Completed
	Set of weights for testing weighbridges .....	C. 2693	29 14 0	Completed
	Total .....	—	1,712 13 1	
<i>District No. 2.</i>				
Hookina .....	Additional rooms to maintenance cottages .....	pt. C. 2402	240 0 0	Not completed
Merremna .....	Suction pipe at reservoir .....	pt. C. 2362	11 17 1	Not completed
299½ miles .....	Additional rooms to maintenance cottages .....	pt. C. 2402	120 0 0	Not completed
Edeowie .....	Underground tank at maintenance cottages .....	pt. C. 2377	21 5 10	Not completed
Brachina .....	Making survey for site of new reservoir .....	5905	20 2 0	Completed
Parachilna .....	Stop bank at Gorge .....	pt. C. 2226	41 18 0	Completed
	Protecting line from floods .....	pt. C. 2394	908 12 2	Completed
	Underground tank at maintenance cottages .....	pt. C. 2377	21 5 10	Completed
6 miles S. of Beltana	Underground tank at maintenance cottages .....	pt. C. 2377	21 5 9	Not completed
Beltana .....	Suction pipe at reservoir .....	pt. C. 2362	11 17 1	Not completed
Puttapa .....	Additional room to maintenance cottages .....	pt. C. 2402	41 3 8	Not completed
	Total .....	—	1,469 7 5	
<i>District No. 3.</i>				
Puttapa .....	Underground tank at maintenance cottages .....	pt. C. 2377	21 5 9	Not completed
	Additional room to maintenance cottage .....	pt. C. 2402	44 0 0	Not completed
Windy Creek .....	Removing pump and engine-house .....	pt. 5817	3 11 9	Completed
Leigh Creek .....	Alteration to standpipe .....	C. 2695	* 7 10 0	Completed
	Underground tank at maintenance cottages .....	pt. C. 2377	21 5 10	Not completed
Lyndhurst .....	Erecting windmill, tanks, and trough .....	C. 2657	132 6 9	Completed
	Removal of tank and fittings .....	6425	75 2 9	Completed
Farina .....	Extending fencing .....	pt. 4444	2 16 0	Completed
	Extending triangle siding .....	pt. C. 2148	9 2 8	Completed
	Suction pipe at reservoir .....	pt. C. 2362	11 17 1	Not completed
	Underground tank to maintenance cottages .....	pt. C. 2377	21 5 9	Not completed
	Lamp at entrance of station yard .....	C. 2647	4 5 11	Completed
Wirrawilla .....	Additional rooms to maintenance cottages .....	pt. C. 2402	223 9 0	Not completed
Mundowdna .....	Ladder to water tank .....	C. 2590	4 2 0	Completed
Hergott .....	Extending fencing .....	pt. 4446	7 6 5	Completed
	Cattle guards .....	pt. 4447	9 13 10	Completed
	Lining district foreman's office and providing store .....	5778	3 1 2	Completed
	Lamp in goods shed .....	C. 2649	5 7 3	Completed
	Window in kitchen of loco. cottage .....	pt. C. 2702	1 1 0	Not completed
	Laying water service to post office .....	C. 2862	* 5 15 1	Completed
	Total .....	—	614 6 0	

\* Reimbursement.

GREAT

## GREAT NORTHERN LINE—continued.

## A—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION, &amp;c.—continued.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	
CAPITAL ACCOUNT—continued.				
District No. 3—continued.				
CREDITS—				
Windy Creek .....	Removing pump and engine-house .....	5817	18 7 2	
Lyndhurst.....	Removal of tank and fittings.....	6425	350 0 0	
Farina .....	Extending fencing .....	4444	34 11 8	
	Cattle guards .....	4445	21 18 7	
Hergott .....	Extending fencing .....	4446	8 11 8	
	Cattle guards .....	4447	11 4 2	
			444 13 3	
	Total .....	—	169 12 9	
District No. 4.				
Callana .....	Suction pipe at reservoir .....	pt. C. 2362	11 17 0	Not completed
Davenport.....	Reservoir .....	pt. 4356	249 13 7	Not completed
	Erecting tank, pump, water column, and laying mains .....	pt. 4357	505 13 11	Not completed
Coward .....	Underground tank at maintenance cottages.....	pt. 5337	0 15 8	Completed
	Removing office from platform .....	6074	31 0 7	Not completed
	Laying water service from bore to standpipe .....	C. 2653	51 10 2	Completed
	Total .....	—	850 10 11	
District No. 5.				
William Creek ....	Signals .....	pt. 4834	** 0 3 3	Completed
	Removing office from platform .....	pt. 5811	34 0 3	Not completed
Whole district .....	Travelling tank .....	pt. 5854	192 12 8	Completed
			226 16 2	
CREDIT—				
William Creek .....	Signals .....	4834	1 14 3	
	Total .....	—	225 1 11	
District No. 6.				
Warrina .....	Closet and water service to guard's and enginemen's cabins .....	5709	9 19 6	Completed
	Removing office from platform.....	pt. 5811	34 0 3	Not completed
	Three additional tanks to stationmaster's house .....	6320	20 5 6	Completed
	Three additional tanks and small shed to district foreman's house .....	6352	29 9 7	Completed
	Small shed at stationmaster's house .....	6353	9 4 1	Completed
	Laying water service from station to hotel .....	C. 2547	* 7 17 10	Completed
	Fencing in signals .....	pt. 6075	6 5 10	Not completed
Warrina to Peake....	First year's maintenance .....	pt. 6471	204 7 2	Not completed
Peake to Oodnadatta .	First year's maintenance .....	pt. 6469	1,388 16 1	Not completed
	Total .....	—	1,710 5 10	
	Aggregate total, £6,741 17s. 11d.			
Miscellaneous.				
Port Augusta West ..	Putting trucks in order and repairing road on jetty ....	pt. 6076	3 16 0	Not completed
	Repairing steps at south side of jetty.....	6373	1 8 9	Completed
	Total .....	—	5 4 9	

\*\* Credit. \* Reimbursement.

Adelaide June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## ENGINEER-IN-CHIEF'S DEPARTMENT.

GREAT NORTHERN LINE—*continued.***B**—DESCRIPTION OF EXTRAORDINARY WORKS OF REPAIRS AND RENEWALS FOR THE YEAR  
ENDING, JUNE 30TH, 1891.

Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	

## MAINTENANCE AND RENEWAL ACCOUNT.

*District No. 1.*

Port Augusta .....	†Repairing switches and points .....	C. 2510	0 9 8	Completed
	Repairing points .....	C. 2878	*0 2 6	Completed
	†Repairing door of carriage-shed .....	C. 2510	1 15 5	Completed
	New turntable .....	C. 2725	*187 11 8	Completed
	Lengthening crossing, Gibson-street .....	C. 2836	2 7 2	Not completed
	Cesspits to stand pipes on wharf .....	C. 2841	3 13 4	Completed
	Footpath to wharf .....	C. 2864	1 11 6	Completed
		C. 2576	1,103 5 9	Completed
Pichi Richi Pass....	Relaying portion of curves .....	and pt. C. 2791	2,199 10 7	Not completed
Summit .....	†Repairing line .....	C. 2510	0 10 9	Completed
Summit to Quorn....	Prevention of line creeping .....	C. 2708	97 9 3	Completed
Quorn .....	†Repairing points, loco. shop .....	C. 2510	1 14 3	Completed
	†Repairing door of carriage-shed .....	C. 2510	1 5 11	Completed
	Fencing around resident engineer's and stationmaster's houses .....	pt. C. 2446	77 14 8	Completed
	Repairing damage to points .....	C. 2552	*0 2 4	Completed
	Cleaning out catchpit .....	C. 2742	39 3 0	Completed
	Alterations in yard .....	C. 2758	6 18 10	Completed
243 miles .....	†Repairing fence .....	C. 2510	0 4 11	Completed
Wilson .....	†Repairing switch rod .....	C. 2510	0 7 0	Completed
	§Repairing roofs of cottages .....	C. 2615	6 14 3	Completed
Hawker .....	†Repairing hook of connecting rod .....	C. 2510	0 1 6	Completed
	Draining cellar—Stationmaster's house .....	C. 2471	15 12 9	Completed
		C. 2591		
	†Repairing gate .....	C. 2781	*2 8 9	Completed
		C. 2914		
Whole district .....	†Repairing line .....	pt. C. 1750	2 0 0	Completed
	Altering maintenance cottages .....	pt. C. 2451	22 10 0	Not completed
			3,775 5 9	
	<b>CREDITS—</b>			
Port Augusta .....	New turntable—.....	C. 2725	187 11 8	
Mernmerna .....	†Repairing points .....	C. 2878	0 2 6	
Quorn .....	†Repairing points .....	C. 2552	0 2 4	
		C. 2914		
Hawker .....	†Repairing gate .....	C. 2591	2 8 9	
		C. 2781		
Whole district .....	Bracket fishplates on sharp curves .....	C. 1271	129 18 1	
			320 3 4	
	<b>Total</b> .....	—	3,455 2 5	

*District No. 2.*

Hookina .....	†Renewing fender piles .....	C. 2743	8 6 0	Completed
Mernmerna .....	Cleaning silt out of reservoir .....	C. 2769	46 15 9	Completed
307½ miles to 327½ ..	†Repairing line .....	C. 2821	20 7 3	Completed
Parachilna .....	†Repairing cattle ramp .....	C. 2510	0 17 6	Completed
	†Concrete culvert at cattle guard .....	pt. C. 2442	6 4 3	Completed
	†Replacing sheet of iron on goods shed .....	C. 2616	** 0 5 6	Completed
344 miles .....	†Repairing permanent way .....	C. 2510	2 6 6	Completed
Whole district .....	Erecting huts for packers .....	pt. C. 1663	1 13 9	Not completed
	Altering maintenance cottages .....	pt. C. 2451	22 10 0	Not completed
	†Repairing line .....	C. 2326	185 13 7	Completed
	†Repairing weeding machine .....	pt. C. 2928	3 1 6	Not completed
			298 1 7	
	<b>CREDITS—</b>			
Parachilna .....	†Replacing sheet of iron on goods shed .....	C. 2616	0 5 6	
	†Repairing line .....	C. 1751	15 0 0	
			15 5 6	
	<b>Total</b> .....	—	282 16 1	

\*\* Credit.

\* Reimbursement.

† Damaged by accident.

‡ Damaged by flood.

§ Damaged by storm.

GREAT

GREAT NORTHERN LINE—continued.

B—DESCRIPTION OF EXTRAORDINARY WORKS, &c.—continued.

Station or Mileage.	Description of Works.	D.O.	Amount.	State if Completed.
		No.	£ s. d.	

MAINTENANCE AND RENEWAL ACCOUNT—continued.

District No. 3.

382 miles .....	Rebuilding culverts .....	pt. C. 1089	2 13 10	Completed
384½ miles .....	Rebuilding foundation of south abutment .....	pt. C. 2441	1 1 6	Completed
386½ miles .....	Raising line and building four flood openings .....	pt. C. 1821	** 18 13 6	Completed
Windy Creek .....	† Replacing fender piles .....	C. 2736	28 2 11	Completed
Leigh Creek .....	† Repairing glass in lamp .....	C. 2553	* 0 7 7	Completed
Farina .....	† Repairing window of loco. running-shed .....	C. 2510	0 12 7	Completed
Farina to Hergott ..	Renewing piers of flood openings .....	pt. C. 2443	86 0 6	Not completed
Hergott .....	† Repairing points .....	C. 2510	1 8 8	Completed
	Repairs to bore .....	C. 2587	128 8 6	Completed
Whole district .....	Erecting huts for packers .....	pt. C. 1663	1 13 9	Not completed
	† Repairing line .....	C. 2327	22 19 3	Completed
			292 2 7	
	CREDITS—			
Leigh Creek .....	† Repairing glass in lamp .....	C. 2553	0 7 7	
386½ miles .....	Raising line and building four flood openings .....	C. 1821	25 0 0	
Whole district .....	† Repairing line .....	C. 1752	60 19 2	
			86 6 9	
	Total .....	—	205 15 10	

District No. 4.

Wangianna .....	§ Repairing roof of permanent way cottages .....	C. 2602	10 3 2	Completed
	Total .....	—	10 3 2	

District No. 5.

William Creek .....	† Repairing line .....	C. 2510	1 1 0	Completed
Whole district .....	† Repairing line .....	C. 2407	2 8 0	Completed
	Total .....	—	3 9 0	

District No. 6.

Warrina .....	† Repairing cattle ramp .....	C. 2510	0 19 3	Completed
	Total .....	—	0 19 3	
	Aggregate total, £3,958 5s. 9d.			

\*\* Credit.      \* Reimbursement.      † Damaged by accident.      ‡ Damaged by flood.      § Damaged by storm.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.



C—RETURN OF COST OF WORKS OF MAINTENANCE  
MAINTENANCE AND

Gauge

ORDINARY AND CURRENT REPAIRS.									
Mileage.	Sub-head.	Contract.	Labor.	Stores and Material.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.
		\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
DISTRICT 1.	General expenses—								
Main line ..... 71m. 45c.	Engineering and supervision .....	—	443 11 5	31 7 0	—	—	—	474 18 8	5 8 10
Sidings ..... 15m. 55c.	Sick and recreation leave .....	—	184 12 6	—	—	—	—	184 12 6	2 2 4
Double switches, No. 17	Way .....	—	2,905 8 2	427 16 11	88 9 3	—	—	3,421 14 4	39 4 4
Single switches, No. 143	Works .....	29 6 8	925 3 6	82 3 0	6 7 5	—	—	1,043 0 7	11 19 1
	Buildings .....	68 2 11	158 14 2	74 4 0	2 5 4	—	—	338 6 5	3 17 7
	Rolling-stock .....	—	29 6 8	46 4 2	—	—	—	75 10 10	0 17 7
	Machinery, tools, &c. ....	—	32 0 6	6 6 7	—	—	—	38 7 1	0 8 9
	Water, fuel, &c. ....	—	32 18 9	31 8 5	—	—	—	64 7 2	0 14 9
	Gross Total .....	97 9 7	4,746 15 11	609 10 1	97 2 0	—	—	5,640 17 7	64 13 0
	Reimbursements .....	—	—	64 8 2	0 0 2	—	—	64 8 4	0 14 9
	Net Total .....	97 9 7	4,746 15 11	635 1 11	97 1 10	—	—	5,576 9 3	63 18 3
DISTRICT 2.	General expenses—								
Main line ..... 78m. 40c.	Engineering and supervision .....	—	433 3 6	24 1 9	—	—	—	457 10 3	5 12 3
Sidings ..... 3m. 3c.	Sick and recreation leave .....	—	121 19 0	—	—	—	—	121 19 0	1 9 11
Double switches, No. 12	Way .....	—	2,753 17 2	320 0 9	45 1 4	—	—	3,118 19 3	38 5 0
Single switches, No. 14	Works .....	—	984 9 5	18 9 7	7 15 8	—	—	1,010 14 8	12 7 11
	Buildings .....	141 12 2	43 10 7	34 7 6	2 6 6	—	—	221 16 9	2 14 5
	Rolling-stock .....	—	35 18 7	44 6 3	—	—	—	80 4 10	0 19 8
	Machinery, tools, &c. ....	—	8 19 0	0 14 11	—	—	—	9 13 11	0 2 5
	Water, fuel, &c. ....	—	20 13 7	4 19 6	—	—	—	25 13 1	0 6 4
	Gross Total .....	141 12 2	4,402 15 10	447 0 3	55 3 6	—	—	5,046 11 9	61 17 11
	Reimbursements .....	—	—	2 3 11	1 12 6	—	—	3 16 5	0 1 0
	Net Total .....	141 12 2	4,402 15 10	444 16 4	53 11 0	—	—	5,043 15 4	61 16 11
DISTRICT 3.	General expenses—								
Main line ..... 82m. 0c.	Engineering and supervision .....	—	423 0 1	24 7 9	—	—	—	447 7 10	5 4 0
Sidings ..... 4m. 1c.	Sick and recreation leave .....	—	118 18 3	—	—	—	—	118 18 3	1 7 8
Double switches, No. 4	Way .....	—	2,822 1 5	232 2 0	32 10 0	—	—	3,106 13 5	36 2 5
Single switches, No. 36	Works .....	27 11 10	1,009 17 10	4 17 7	4 5 3	—	—	1,046 12 6	12 3 4
	Buildings .....	142 2 8	50 6 8	28 0 3	0 12 0	—	—	231 1 7	2 11 5
	Rolling-stock .....	—	34 0 9	23 4 8	—	—	—	57 4 5	0 13 4
	Machinery, tools, &c. ....	—	16 10 4	0 12 11	—	—	—	17 3 3	0 4 0
	Water, fuel, &c. ....	—	5 0 8	73 12 1	—	—	—	78 12 9	0 18 3
	Gross Total .....	169 14 6	4,479 16 0	386 17 3	57 7 3	—	—	5,093 15 0	59 4 5
	Reimbursements .....	—	—	7 17 1	0 3 4	—	—	8 0 5	0 1 10
	Net Total .....	169 14 6	4,479 16 0	379 0 2	57 3 11	—	—	5,085 14 7	59 2 7
DISTRICT 4.	General expenses—								
Main line ..... 79m. 60c.	Engineering and supervision .....	—	423 18 9	23 17 11	—	—	—	447 16 8	5 8 8
Sidings ..... 3m. 54c.	Sick and recreation leave .....	—	142 3 0	—	—	—	—	142 3 0	1 14 6
Double switches, No. 2	Way .....	—	3,199 7 5	76 17 11	35 7 4	—	—	3,311 12 8	40 3 7
Single switches, No. 23	Works .....	—	459 1 7	2 18 7	3 10 1	—	—	565 10 3	6 17 3
	Buildings .....	—	18 18 8	8 9 11	4 13 0	—	—	32 1 7	0 7 9
	Rolling-stock .....	—	28 13 2	26 7 2	—	—	—	53 0 4	0 13 10
	Machinery, tools, &c. ....	—	4 3 3	0 8 6	—	—	—	4 11 8	0 1 1
	Water, fuel, &c. ....	—	8 3 2	—	—	—	—	8 3 2	0 2 0
	Gross Total .....	—	4,382 9 0	138 19 11	43 10 5	—	—	4,564 19 4	55 7 8
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net Total .....	—	4,382 9 0	138 19 11	43 10 5	—	—	4,564 19 4	55 7 8
DISTRICT No. 5.	General expenses—								
Main line ..... 81m. 00c.	Engineering and supervision .....	—	400 17 5	24 2 8	—	—	—	425 0 1	5 2 3
Sidings ..... 3m. 12c.	Sick and recreation leave .....	—	131 0 0	—	—	—	—	131 0 0	1 11 6
Double switches, No. 1	Way .....	—	3,175 4 7	98 4 4	28 15 5	—	—	3,302 4 4	39 14 3
Single switches, No. 21	Works .....	—	607 17 3	2 4 5	—	—	—	710 1 8	7 6 9
	Buildings .....	—	20 1 7	6 13 3	0 18 0	—	—	27 12 10	0 6 8
	Rolling-stock .....	—	9 18 5	11 8 7	—	—	—	21 7 0	0 5 2
	Machinery, tools, &c. ....	—	0 2 9	1 4 1	—	—	—	1 6 10	0 0 4
	Water, fuel, &c. ....	—	54 19 8	0 15 6	—	—	—	55 15 2	0 13 5
	Gross total .....	—	4,400 1 8	144 12 10	29 13 5	—	—	4,574 7 11	55 0 4
	Reimbursements .....	—	—	4 10 3	0 3 4	—	—	4 13 7	0 1 1
	Net total .....	—	4,400 1 8	140 2 7	29 10 1	—	—	4,569 14 4	54 19 3
District No. 6.*	General expenses—								
Main line ..... 30m. 59c.	Engineering and supervision .....	—	197 13 1	14 12 2	—	—	—	212 5 3	6 12 1
Sidings ..... 1m. 32c.	Sick and recreation leave .....	—	62 12 0	—	—	—	—	62 12 0	1 18 11
Double switches, No. 34	Way .....	—	1,553 7 4	1 18 0	18 11 9	—	—	1,573 17 1	48 19 5
Single switches, No. 11	Works .....	—	45 0 7	1 12 10	0 3 6	—	—	46 16 11	1 9 2
	Buildings .....	—	10 9 4	1 13 4	2 4 7	—	—	14 7 3	0 8 11
	Rolling-stock .....	—	0 14 6	7 19 10	—	—	—	8 14 4	0 5 5
	Machinery, tools, &c. ....	—	—	0 9 2	—	—	—	0 9 2	0 0 4
	Water, fuel, &c. ....	—	5 0 4	1 5 0	—	—	—	6 5 4	0 3 11
	Gross total .....	—	1,874 17 2	29 10 4	20 19 10	—	—	1,925 7 4	59 18 2
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	1,874 17 2	29 10 4	20 19 10	—	—	1,925 7 4	59 18 2
SUM									
Main line ..... 423m. 44c.	General expenses—								
Sidings ..... 23m. 77c.	Engineering and supervision .....	—	2,322 9 6	143 9 3	—	—	—	2,464 18 9	5 8 10
Double switches, No. 24	Sick and recreation leave .....	—	761 4 9	—	—	—	—	761 4 9	1 13 8
Single switches, No. 248	Way .....	—	16,409 8 1	1,156 19 11	368 15 1	—	—	17,835 1 1	39 8 3
	Works .....	56 18 6	4,131 10 2	112 6 0	22 1 11	—	—	4,323 16 7	9 11 1
	Buildings .....	351 17 9	337 1 0	153 8 3	12 19 5	—	—	855 6 5	1 17 10
	Rolling-stock .....	—	136 12 1	159 10 8	—	—	—	296 2 9	0 13 1
	Machinery, tools, &c. ....	—	61 15 10	9 16 1	—	—	—	71 11 11	0 8 2
	Water, fuel, &c. ....	—	136 16 2	112 0 6	—	—	—	238 16 8	0 10 7
	Gross Total .....	408 16 3	24,286 15 7	1,846 10 8	303 16 5	—	—	26,845 18 11	59 6 6
	Reimbursements .....	—	—	78 19 5	1 19 4	—	—	80 18 9	0 3 7
	Net Total .....	408 16 3	24,286 15 7	1,767 11 3	301 17 1	—	—	26,765 0 2	59 2 11

\* The portion of line from Warrina to Oodnadatta, 54 miles 34 chains in length, is

Norm.—The Aggregate Total shown in the Return is the Actual Expenditure incurred during the year. That shown on the Return furnished by the Adelaide, June 30th, 1891.

XTRAORDINARY REPAIRS AND RENEWALS.							TOTALS.			
Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	AGGREGATE TOTAL.	Average Cost per Mile of Single Line, including Sidings.	Average Cost per Mile of Railway.
\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
—	—	—	—	—	—	—	—	474 13 8	5 8 10	6 12 9
—	—	—	—	—	—	—	—	184 12 6	2 2 4	2 11 7
—	1,083 1 2	2,843 1 0	—	—	—	3,926 2 11	44 19 11	7,377 17 3	84 4 3	102 13 7
—	40 15 3	49 5 1	—	—	—	90 0 4	1 0 8	1,133 0 11	12 19 9	15 16 8
22 10 0	17 8 8	7 19 8	—	—	—	47 18 4	0 11 0	386 4 0	4 8 7	5 7 11
—	—	—	—	—	—	—	—	75 10 10	0 17 4	1 1 1
—	22 13 4	164 18 4	—	—	—	187 11 8	2 8 0	235 18 9	2 11 9	3 3 2
—	—	39 3 0	—	—	—	39 3 0	0 9 0	103 10 2	1 3 9	1 8 11
22 10 6	1,163 18 5	3,104 7 10	—	—	—	4,267 16 3	49 3 7	9,931 13 10	113 16 7	138 15 8
—	—	835 13 10	—	—	—	835 13 10	9 11 8	900 2 2	10 6 5	12 11 7
22 10 0	1,163 18 5	2,268 14 0	—	—	—	3,431 2 5	34 11 11	9,031 11 8	103 10 2	128 4 1
—	—	—	—	—	—	—	—	457 10 3	5 12 3	5 16 7
—	—	—	—	—	—	—	—	121 19 0	1 9 11	1 11 0
—	3 10 8	1 17 4	—	—	—	5 8 0	0 1 4	3,124 7 3	38 6 4	39 16 0
—	187 0 2	40 14 5	—	—	—	227 14 7	2 15 10	1,234 9 3	15 3 9	15 15 7
22 10 0	0 13 6	2 3 3	—	—	—	25 6 9	0 6 2	247 3 6	3 0 7	3 2 10
—	—	—	—	—	—	—	—	80 4 10	0 19 8	1 0 6
—	—	—	—	—	—	—	—	9 13 11	0 2 5	0 2 6
—	31 4 3	15 11 6	—	—	—	46 15 9	0 11 6	72 8 10	0 17 10	0 18 6
22 10 0	223 8 7	60 6 6	—	—	—	303 5 1	3 14 10	5,351 16 10	65 12 9	68 3 6
—	—	22 9 0	—	—	—	22 9 0	0 5 6	26 5 5	0 6 6	0 6 8
22 10 0	223 8 7	37 17 6	—	—	—	282 16 1	3 9 4	5,323 11 5	65 6 3	67 16 10
—	—	—	—	—	—	—	—	477 7 10	5 4 0	5 9 2
—	—	—	—	—	—	—	—	118 18 3	1 7 8	1 9 0
—	1 4 8	0 4 0	—	—	—	1 8 8	0 0 4	3,108 2 1	36 2 9	37 18 1
—	117 6 11	42 4 7	—	—	—	159 11 6	1 17 1	1,306 4 0	14 0 5	14 14 2
—	0 15 8	1 18 3	—	—	—	2 13 11	0 0 8	223 15 6	2 12 1	2 14 7
—	—	—	—	—	—	—	—	57 5 5	0 13 4	0 14 0
—	82 5 3	46 3 3	—	—	—	128 8 6	1 9 10	17 3 3	0 4 0	0 4 2
—	—	—	—	—	—	—	—	207 1 3	2 8 1	2 10 6
—	201 12 6	90 10 1	—	—	—	292 2 7	3 7 11	5,385 17 7	62 12 4	65 13 8
—	—	86 6 9	—	—	—	86 6 9	1 0 1	94 7 2	1 1 11	1 3 0
—	201 12 6	4 3 4	—	—	—	205 15 10	2 7 10	5,291 10 5	61 10 5	64 10 8
—	—	—	—	—	—	—	—	447 16 8	5 8 8	5 12 4
—	—	—	—	—	—	—	—	142 3 0	1 14 6	1 15 8
—	—	—	—	—	—	—	—	3,311 12 8	40 3 7	41 10 6
—	8 0 6	2 2 8	—	—	—	10 3 3	0 2 6	565 10 3	6 17 3	7 1 10
—	—	—	—	—	—	—	—	42 4 9	0 10 3	0 10 7
—	—	—	—	—	—	—	—	53 0 4	0 12 10	0 13 8
—	—	—	—	—	—	—	—	4 11 4	0 1 1	0 1 2
—	—	—	—	—	—	—	—	8 3 3	0 2 0	0 2 6
—	8 0 6	2 2 8	—	—	—	10 3 2	0 2 6	4,575 2 6	55 10 2	57 7 4
—	—	—	—	—	—	—	—	—	—	—
—	8 0 6	2 2 8	—	—	—	10 3 2	0 2 6	4,575 2 6	55 10 2	57 7 4
—	—	—	—	—	—	—	—	425 0 1	5 2 3	5 4 11
—	—	—	—	—	—	—	—	131 0 0	1 11 6	1 12 4
—	1 1 0	—	—	—	—	1 1 0	0 0 3	3,303 5 4	39 14 6	40 15 8
—	2 8 0	—	—	—	—	2 8 0	0 0 7	612 9 7	7 7 4	7 11 3
—	—	—	—	—	—	—	—	27 12 10	0 6 8	0 6 10
—	—	—	—	—	—	—	—	21 7 0	0 5 2	0 5 3
—	—	—	—	—	—	—	—	1 6 10	0 0 4	0 0 4
—	—	—	—	—	—	—	—	55 15 2	0 14 5	0 18 9
—	3 9 0	—	—	—	—	3 9 0	0 0 10	4,577 16 11	55 1 2	58 10 4
—	—	—	—	—	—	—	—	4 13 7	0 1 1	0 1 2
—	3 9 0	—	—	—	—	3 9 0	0 0 10	4,573 3 4	55 0 1	58 9 2
—	—	—	—	—	—	—	—	212 5 3	6 12 1	6 18 1
—	—	—	—	—	—	—	—	62 12 0	1 18 11	2 0 9
—	—	—	—	—	—	—	—	1,573 17 1	48 19 5	51 4 0
—	—	—	—	—	—	—	—	46 16 11	1 9 2	1 10 6
—	0 9 0	0 10 3	—	—	—	0 19 3	0 0 7	15 6 6	0 9 6	0 10 0
—	—	—	—	—	—	—	—	8 14 4	0 5 5	0 5 8
—	—	—	—	—	—	—	—	0 9 2	0 0 4	0 0 4
—	—	—	—	—	—	—	—	6 5 4	0 3 11	0 4 1
—	0 9 0	0 10 3	—	—	—	0 19 3	0 0 7	1,926 6 7	59 18 9	62 13 5
—	—	—	—	—	—	—	—	—	—	—
—	0 9 0	0 10 3	—	—	—	0 19 3	0 0 7	1,926 6 7	59 18 9	62 13 5

MARY.

—	—	—	—	—	—	—	—	2,464 18 9	5 8 10	5 16 5
—	—	—	—	—	—	—	—	761 4 9	1 13 8	1 15 11
—	1,088 17 6	2,845 3 1	—	—	—	3,934 0 7	8 13 11	21,769 1 8	48 2 2	51 7 10
—	347 10 4	132 4 1	—	—	—	479 14 5	1 1 3	4,802 11 0	10 12 4	11 6 9
45 0 0	27 7 4	14 14 1	—	—	—	87 1 6	0 3 10	942 7 9	2 1 8	2 4 6
—	—	—	—	—	—	—	—	296 2 0	0 13 1	0 14 0
—	22 13 4	164 18 4	—	—	—	187 11 8	0 8 3	259 3 7	0 11 5	0 12 3
—	113 9 6	100 17 9	—	—	—	214 7 3	0 9 5	453 3 11	1 0 0	1 1 5
45 0 0	1,599 18 0	3,257 17 4	—	—	—	4,856 15 4	10 16 8	81,748 14 3	70 3 2	74 19 1
—	—	944 9 7	—	—	—	944 9 7	2 1 9	1,025 8 4	2 5 4	2 8 5
45 0 0	1,599 18 0	2,313 7 9	—	—	—	3,912 5 9	8 14 11	30,723 5 11	67 17 10	72 10 8

being maintained by loan account for twelve months from January 7th, 1891.  
Comptroller is the Net Expenditure brought to Debit during the year. This accounts for the apparent discrepancy between the two Returns.  
Q—No. 47. ALEX. B. MONCRIEFF, Engineer-in-Chief.  
ENGINEER

ENGINEER-IN-CHIEF'S  
GREAT NORTHERN

Gauge.

**E**-STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION OF

	Rate of Pay.	Resident Engineer.	Res. Engineer's Assistant.	Surveyor.	Draughtsmen.	Clerks.	District Foreman.	Foremen, Works and Buildings.	Gangers.	Fitters.	Smiths.
<b>DISTRICT No. 1.</b>											
<i>Length.</i>											
Main line ..... 71m. 45ch.	\$450 per annum...	18	18	—	18	—	—	—	—	—	—
Sidings ..... 15m. 55ch.	\$170 " .....	—	—	—	—	—	—	—	—	—	—
	\$150 " .....	—	—	—	—	—	—	—	—	—	—
	\$100 " .....	—	—	—	—	05	—	—	—	—	—
	15/- per diem .....	—	—	—	—	—	1 00	—	—	—	—
	10/6 " .....	—	—	—	—	—	—	—	—	—	—
	10/- " .....	—	—	—	—	18	—	—	—	—	—
	8/- " .....	—	—	—	—	—	—	—	—	—	—
	7/6 " .....	—	—	—	—	—	—	—	11 00	—	—
	7/- " .....	—	—	—	—	14	—	—	50	—	—
	6/6 " .....	—	—	—	—	—	—	—	—	—	—
	3/4 " .....	—	—	—	—	04	—	—	—	—	—
	2/6 " .....	—	—	—	—	—	—	—	—	—	—
<b>Total ..... 87m. 80ch.</b>	<b>Totals .....</b>	<b>18</b>	<b>18</b>	<b>—</b>	<b>18</b>	<b>41</b>	<b>1 00</b>	<b>—</b>	<b>11 50</b>	<b>—</b>	<b>30</b>
<b>DISTRICT No. 2.</b>											
<i>Length.</i>											
Main line ..... 78m. 40ch.	\$450 per annum...	18	18	—	—	—	—	—	—	—	—
Sidings ..... 3m. 8ch.	\$170 " .....	—	—	—	—	—	—	—	—	—	—
	\$150 " .....	—	—	—	18	—	—	—	—	—	—
	\$100 " .....	—	—	—	—	05	—	—	—	—	—
	14/- per diem .....	—	—	—	—	—	1 00	—	—	—	—
	10/6 " .....	—	—	—	—	—	—	—	—	—	—
	10/- " .....	—	—	—	—	18	—	—	—	—	—
	8/6 " .....	—	—	—	—	—	—	—	—	—	—
	7/9 " .....	—	—	—	—	—	—	—	9 00	—	—
	7/3 " .....	—	—	—	—	—	—	—	30	—	—
	7/- " .....	—	—	—	—	14	—	—	—	—	—
	7/- " .....	—	—	—	—	—	—	—	—	—	—
	3/4 " .....	—	—	—	—	04	—	—	—	—	—
	2/6 " .....	—	—	—	—	—	—	—	—	—	—
<b>Total ..... 81m. 43ch.</b>	<b>Totals .....</b>	<b>18</b>	<b>18</b>	<b>—</b>	<b>18</b>	<b>41</b>	<b>1 00</b>	<b>—</b>	<b>9 30</b>	<b>—</b>	<b>30</b>
<b>DISTRICT No. 3.</b>											
<i>Length.</i>											
Main line ..... 82m. 0ch.	\$450 per annum...	18	18	—	—	—	—	—	—	—	—
Sidings ..... 4m. 1ch.	\$170 " .....	—	—	—	—	—	—	—	—	—	—
	\$150 " .....	—	—	—	18	—	—	—	—	—	—
	\$100 " .....	—	—	—	—	05	—	—	—	—	—
	13/- per diem .....	—	—	—	—	—	1 00	—	—	—	—
	10/6 " .....	—	—	—	—	—	—	—	—	—	—
	10/- " .....	—	—	—	—	18	—	—	—	—	—
	8/6 " .....	—	—	—	—	—	—	—	—	—	—
	7/9 " .....	—	—	—	—	—	—	—	9 19	—	—
	7/6 " .....	—	—	—	—	—	—	—	30	—	—
	7/- " .....	—	—	—	—	14	—	—	—	—	—
	7/- " .....	—	—	—	—	—	—	—	—	—	—
	3/4 " .....	—	—	—	—	04	—	—	—	—	—
	2/6 " .....	—	—	—	—	—	—	—	—	—	—
<b>Total ..... 86m. 1ch.</b>	<b>Totals .....</b>	<b>18</b>	<b>18</b>	<b>—</b>	<b>18</b>	<b>41</b>	<b>1 00</b>	<b>—</b>	<b>9 49</b>	<b>—</b>	<b>30</b>
<b>DISTRICT No. 4.</b>											
<i>Length.</i>											
Main line ..... 79m. 60ch.	\$450 per annum...	18	18	—	—	—	—	—	—	—	—
Sidings ..... 2m. 84ch.	\$170 " .....	—	—	—	—	—	—	—	—	—	—
	\$150 " .....	—	—	—	18	—	—	—	—	—	—
	\$100 " .....	—	—	—	—	04	—	—	—	—	—
	13/- per diem .....	—	—	—	—	—	1 00	—	—	—	—
	10/6 " .....	—	—	—	—	—	—	—	—	—	—
	10/- " .....	—	—	—	—	18	—	—	—	—	—
	9/- " .....	—	—	—	—	—	—	—	11 00	—	—
	8/3 " .....	—	—	—	—	—	—	—	25	—	—
	7/6 " .....	—	—	—	—	14	—	—	—	—	—
	7/6 " .....	—	—	—	—	—	—	—	—	—	—
	3/4 " .....	—	—	—	—	08	—	—	—	—	—
	2/6 " .....	—	—	—	—	—	—	—	—	—	—
<b>Total ..... 82m. 84ch.</b>	<b>Totals .....</b>	<b>18</b>	<b>18</b>	<b>—</b>	<b>18</b>	<b>39</b>	<b>1 00</b>	<b>—</b>	<b>11 25</b>	<b>—</b>	<b>10</b>
<b>DISTRICT No. 5.</b>											
<i>Length.</i>											
Main line ..... 81m. 0ch.	\$450 per annum...	18	18	—	—	—	—	—	—	—	—
Sidings ..... 2m. 12ch.	\$170 " .....	—	—	—	—	—	—	—	—	—	—
	\$150 " .....	—	—	—	18	—	—	—	—	—	—
	\$100 " .....	—	—	—	—	04	—	—	—	—	—
	12/- per diem .....	—	—	—	—	—	1 00	—	—	—	—
	10/6 " .....	—	—	—	—	—	—	—	—	—	—
	10/- " .....	—	—	—	—	18	—	—	—	—	—
	9/- " .....	—	—	—	—	—	—	—	11 00	—	—
	8/3 " .....	—	—	—	—	—	—	—	21	—	—
	7/6 " .....	—	—	—	—	14	—	—	—	—	—
	7/6 " .....	—	—	—	—	—	—	—	—	—	—
	3/4 " .....	—	—	—	—	08	—	—	—	—	—
	2/6 " .....	—	—	—	—	—	—	—	—	—	—
<b>Total ..... 83m. 12ch.</b>	<b>Totals .....</b>	<b>18</b>	<b>18</b>	<b>—</b>	<b>18</b>	<b>39</b>	<b>1 00</b>	<b>—</b>	<b>11 21</b>	<b>—</b>	<b>10</b>
<b>DISTRICT No. 6.</b>											
<i>Length.</i>											
Main line ..... 30m. 59ch.	\$450 per annum...	10	10	—	—	—	—	—	—	—	—
Sidings ..... 1m. 32ch.	\$170 " .....	—	—	—	—	—	—	—	—	—	—
	\$150 " .....	—	—	—	10	—	—	—	—	—	—
	\$100 " .....	—	—	—	—	02	—	—	—	—	—
	10/- per diem .....	—	—	—	—	10	—	—	—	—	—
	9/- " .....	—	—	—	—	—	—	—	5 00	—	—
	8/6 " .....	—	—	—	—	—	—	—	19	—	—
	7/6 " .....	—	—	—	—	05	—	—	—	—	—
	6/- " .....	—	—	—	—	—	75	—	—	—	—
	5/- " .....	—	—	—	—	—	25	—	—	—	—
	3/4 " .....	—	—	—	—	02	—	—	—	—	—
	2/6 " .....	—	—	—	—	—	—	—	—	—	—
<b>Total ..... 32m. 11ch.</b>	<b>Totals .....</b>	<b>10</b>	<b>10</b>	<b>—</b>	<b>10</b>	<b>19</b>	<b>1 00</b>	<b>—</b>	<b>5 19</b>	<b>—</b>	<b>10</b>
<b>SUMMARY.</b>											
Main length ..... 428m. 44ch.	<b>Totals .....</b>	<b>10</b>	<b>10</b>	<b>—</b>	<b>10</b>	<b>19</b>	<b>1 00</b>	<b>—</b>	<b>5 19</b>	<b>—</b>	<b>10</b>
Sidings ..... 28m. 77ch.											
<b>Total ..... 452m. 41ch.</b>	<b>Total No. men..</b>	<b>1 00</b>	<b>1 00</b>	<b>—</b>	<b>1 00</b>	<b>2 20</b>	<b>6 00</b>	<b>—</b>	<b>57 84</b>	<b>—</b>	<b>1 00</b>

## DEPARTMENT.

LINE—continued.

3ft. 6in.

PERSONS EMPLOYED ON MAINTENANCE FOR THE YEAR ENDING JUNE 30TH, 1891.

Strikers.	Platelayers.	Packers.	Carpenters.	Masons.	Plumbers.	Painters.	Watchmen.	Chalmers.	Engineers.	Timekeepers.	Laborers.	Youths.	Boys.	Total.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.05
—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	.30	—	—	—	—	—	—	—	—	—	—	.30
—	—	—	.70	—	—	—	—	—	—	—	—	—	—	1.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.00
.30	—	—	—	—	—	—	—	—	—	—	—	—	—	.94
—	—	11.00	—	—	—	—	—	—	—	—	—	—	—	10.00
—	—	13.00	—	—	—	—	—	—	—	—	—	—	—	13.03
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.04
—	—	—	—	—	—	—	—	—	—	—	—	—	.30	.30
.30	—	24.00	1.00	—	—	—	—	—	—	—	—	—	.30	39.35
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.05
—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	.13	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	.30	—	—	—	—	—	—	—	—	—	—	.68
—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.00
.20	—	—	—	—	—	—	—	—	—	—	—	—	—	.30
—	—	23.25	—	—	—	—	—	—	—	—	—	—	—	.34
—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.04
—	—	—	—	—	—	—	—	—	—	—	—	—	.20	.20
.20	—	23.25	.43	—	—	—	—	—	—	—	—	—	.20	35.53
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.05
—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	.12	—	—	—	—	—	—	—	—	—	—	.12
—	—	—	.30	—	—	—	—	—	—	—	—	—	—	.68
—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.19
.20	—	—	—	—	—	—	—	—	—	—	—	—	—	.30
—	—	23.23	—	—	—	—	—	—	—	—	—	—	—	.34
—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.23
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.04
—	—	—	—	—	—	—	—	—	—	—	—	—	.20	.20
.20	—	23.23	.42	—	—	—	—	—	—	—	—	—	.20	35.69
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.04
—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	.10	—	—	—	—	—	—	—	—	—	—	.10
—	—	—	.20	—	—	—	—	—	—	—	—	—	—	.48
.10	—	18.65	—	—	—	—	—	—	—	—	—	—	—	11.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.89
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.03
—	—	—	—	—	—	—	—	—	—	—	—	—	.20	.20
.10	—	18.65	.30	—	—	—	—	—	—	—	—	—	.20	32.53
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.04
—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	.10	—	—	—	—	—	—	—	—	—	—	.10
—	—	—	.35	—	—	—	—	—	—	—	—	—	—	.63
.10	—	18.12	—	—	—	—	—	—	—	—	—	—	—	11.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.21
—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.36
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.03
—	—	—	—	—	—	—	—	—	—	—	—	—	.20	.20
.10	—	18.12	.45	—	—	—	—	—	—	—	—	—	.20	32.11
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.02
—	—	—	.10	—	—	—	—	—	—	—	—	—	—	.30
.10	—	7.75	—	—	—	—	—	—	—	—	—	—	—	5.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.19
—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.90
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.75
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	.02
—	—	—	—	—	—	—	—	—	—	—	—	—	.10	.10
.10	—	7.75	.10	—	—	—	—	—	—	—	—	—	.10	14.83
1.00	—	115.00	2.70	—	—	—	—	—	—	—	—	—	1.20	190.04

ALEX. B. MONCRIEFF, Engineer-in-Chief.

No. 47.

ENGINEER

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## SOUTH-EASTERN SYSTEM.

## SOUTH-EASTERN LINES.

**A**—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION DURING THE YEAR ENDING JUNE 30TH, 1891.

Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	

## CAPITAL ACCOUNT.

## District No. 1.

Frances .....	Raising pumphouse and engine above flood level .....	8155	27 11 2	Completed
	Laying water service to maintenance cottages .....	pt. C. 2861	0 11 8	Not completed
Naracoorte .....	Extending loco. shops, erecting loco. workmen's houses {	C. 1786 and pt. 5946	1,484 13 7	Completed
	Fixing telephone .....	pt. 6143	9 9 11	Completed
	Two additional rooms to maintenance cottages .....	C. 2404	84 1 8	Completed
	Providing weeding machine .....	C. 2703	265 18 3	Completed
	Total .....	—	1,872 6 3	

## District No. 2.

Lucindale .....	Erecting sheep and cattle yards and laying siding for do.	C. 2620	124 16 2	Completed
Bull Island .....	Erecting 25,000-gallon C.I. tank .....	pt. C. 2789	117 1 8	Not completed
286½ miles .....	Construction of level crossing .....	pt. C. 2431	33 19 10	Completed
Kingston .....	Removing old store .....	6063	** 5 3 6	Completed
			281 1 2	
Kingston .....	Removing old store .....	6063	8 18 1	
	Total .....	—	272 3 1	

## District No. 3.

Penola .....	Fixing telephone in booking office .....	pt. 6143	9 9 11	Completed
299½ miles .....	Construction of public road level crossing .....	6397	61 12 2	Completed
300½ miles .....	Additional room to maintenance cottage .....	pt. C. 2404	41 10 0	Completed
Mount Gambier ....	Putting two new windows in and altering old windows of carriage shed .....	C. 2521	13 18 5	Completed
	Fixing telephone in booking office .....	pt. 6143	9 9 11	Completed
Tantanoola .....	Additional room to maintenance cottage .....	pt. C. 2404	41 10 0	Completed
342½ miles .....	Putting in guard rails for occupation crossing .....	C. 2559	* 1 0 0	Completed
346½ miles .....	Fencing 25 chains of line .....	pt. C. 2432	2 13 0	Completed
			181 3 5	
342½ miles .....	Putting in guard rails for occupation crossing .....	C. 2559	1 0 0	
	Total .....	—	180 3 5	
	Aggregate total, £2,324 12s. 9d.			

\*\* Credits.

\* Reimbursements.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## SOUTH-EASTERN LINES—continued.

**B**—DESCRIPTION OF EXTRAORDINARY WORKS OF REPAIRS AND RENEWALS FOR THE YEAR  
ENDING JUNE 30TH, 1891.

Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Amount.			State if Completed.
		No.	£	s.	d.	

## MAINTENANCE AND RENEWAL ACCOUNT.

## District No. 1.

Frances .....	†Repairing fence .....	C. 2744	* 0	11	0	Completed
Hynam .....	†Repairing scotch block .....	C. 2511	1	3	3	Completed
Naracoorte .....	†Repairing switches .....	C. 2511	0	18	5	Completed
	†Repairing reservoir .....	C. 2600	548	10	5	Completed
	†Repairing glass door at passenger station .....	C. 2638	* 0	7	3	Completed
250½ miles .....	†Repairing damages—putting in timber piles in the place of concrete piers .....	C. 2815	78	0	2	Completed
CREDITS—			629	10	6	
Frances .....	Repairing fence .....	C. 2744	0	11	0	
Naracoorte .....	Repairing glass door at passenger station .....	C. 2638	0	7	3	
			0	18	3	
Total .....		—	628	12	3	

## District No. 2.

Naracoorte to Kingston	Renewing timber girders, wallplates, &c., on bridges and culverts .....	pt. C. 2816	77	9	1	Not completed
Kingston .....	†Repairing switches .....	pt. C. 2488	0	10	9	Completed
	†Repairing stopblock .....	C. 2511	0	15	3	Completed
	†Repairing travelling crane .....	C. 2605	* 20	1	2	Completed
		C. 2755				
		C. 2511				
CREDIT—			98	16	3	
Kingston .....	Repairing travelling crane .....	C. 2605	7	19	7	
Total .....		—	90	16	8	

## District No. 3.

Penola .....	†Repairing switches .....	C. 2511	0	4	0	Completed
296 miles .....	†Repairing fences .....	C. 2800	4	15	0	Completed
Mount Gambier .....	†Repairing goods-shed door .....	C. 2511	1	5	6	Completed
310 miles .....	†Repairing fences .....	C. 2796	36	0	9	Completed
341 miles 2 chains ..	Substituting box culvert for pipes in drain 11s .....	C. 2551	10	0	8	Completed
Beachport .....	†Repairing jetty .....	C. 2898	* 3	3	8	Completed
CREDIT—			55	9	7	
Beachport .....	Repairing jetty .....	C. 2898	3	3	8	
Total .....		—	52	5	11	
Aggregate total, \$771 14s. 10d.						

\* Reimbursements.

† Damaged by accident.

‡ Damaged by flood.

§ Damaged by fire.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## C—RETURN OF COST OF WORKS OF MAINTENANCE

MAINTENANCE AND

Gauge,

Mileage.	Sub-head.	ORDINARY AND CURRENT REPAIRS.							Average Cost per Mile of Single Line, including Sidings.
		Contract.	Labor.	Stores and Material.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	
		<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>
District No. 1. Main line..... 77m. 58c. Sidings..... 4m. 1c. Double switches, No. 4 Single do. No. 49	General expenses—								
	Engineering and supervision	—	550 16 7	16 4 4	—	—	—	576 0 11	7 1 1
	Sick and recreation leave.....	—	131 5 8	—	—	—	—	131 5 8	1 12 2
	Way .....	—	2,974 15 5	116 5 1	3 19 7	2 13 9	24 7 3	3,122 1 1	38 4 6
	Works .....	—	433 3 9	10 12 0	0 16 2	—	—	444 11 11	5 8 10
	Buildings .....	—	33 15 3	16 7 8	2 4 8	—	—	52 7 2	0 12 10
	Rolling-stock .....	—	11 15 9	29 2 4	0 18 3	—	—	41 16 4	0 10 3
	Machinery, tools, &c. ....	—	4 14 11	0 17 3	—	—	—	5 12 1	0 1 4
	Water, fuel, &c. ....	—	4 6 8	1 1 0	—	—	—	5 7 8	0 1 4
	Gross total .....	—	4,153 14 0	190 9 7	7 18 3	2 13 9	24 7 3	4,379 2 10	53 12 4
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	4,153 14 0	190 9 7	7 18 3	2 13 9	24 7 3	4,379 2 10	53 12 4
District No. 2. Main line ..... 52m. 4c. Sidings ..... 3m. 51c. Double switches, No. 11 Single do. No. 25	General expenses—								
	Engineering and supervision	—	513 5 1	12 18 9	—	—	—	526 3 10	9 9 0
	Sick and recreation leave.....	—	87 3 8	—	—	—	—	87 3 8	1 11 4
	Way .....	—	2,025 4 8	89 19 0	6 8 11	—	—	2,121 12 7	38 2 0
	Works .....	—	314 2 11	15 18 1	3 9 2	—	—	333 10 2	5 19 9
	Buildings .....	—	20 17 0	9 15 3	0 10 9	—	—	31 3 0	0 11 2
	Rolling-stock .....	—	2 5 0	38 11 11	0 14 3	—	—	41 11 2	0 14 11
	Machinery, tools, &c. ....	—	9 0 5	3 19 11	1 4 0	—	—	14 4 4	0 5 1
	Water, fuel, &c. ....	—	0 10 0	—	—	—	—	0 10 0	0 0 2
	Gross total .....	—	2,972 8 9	171 2 11	12 7 1	—	—	3,153 18 9	56 13 5
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	2,972 8 9	171 2 11	12 7 1	—	—	3,153 18 9	56 13 5
District No. 3. Main line..... 35m. 70c. Sidings..... 5m. 74c. Double switches, No. 12 Single do. No. 40	General expenses—								
	Engineering and supervision	—	555 18 9	12 10 9	—	—	—	568 9 6	6 3 10
	Sick and recreation leave.....	—	142 6 2	—	—	—	—	142 6 2	1 11 0
	Way .....	—	3,307 14 5	229 8 9	6 1 7	1 17 4	16 8 3	3,561 10 4	38 15 11
	Works .....	—	555 3 4	145 14 11	2 17 5	0 4 11	0 12 6	704 13 1	7 13 6
	Buildings .....	—	58 10 3	32 18 3	4 2 8	—	—	95 11 2	1 0 10
	Rolling-stock .....	—	11 4 3	13 18 4	1 1 0	—	—	26 3 7	0 5 9
	Machinery, tools, &c. ....	—	49 16 7	10 1 7	0 6 0	—	—	60 4 2	0 13 1
	Water, fuel, &c. ....	—	4 19 4	0 0 10	—	—	—	5 0 2	0 1 1
	Gross total .....	—	4,885 13 1	444 13 5	14 8 8	2 2 3	17 0 9	5,163 18 2	56 5 0
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	4,885 13 1	444 13 5	14 8 8	2 2 3	17 0 9	5,163 18 2	56 5 0
Main line ..... 315m. 47c. Sidings ..... 13m. 46c. Double switches, No. 27 Single do. No. 114	General expenses—								
	Engineering and supervision	—	1,629 0 5	41 13 10	—	—	—	1,670 14 3	7 5 10
	Sick and recreation leave.....	—	380 15 6	—	—	—	—	380 15 6	1 11 6
	Way .....	—	8,307 14 5	435 12 10	16 10 1	4 11 1	40 15 6	8,805 4 0	38 8 6
	Works .....	—	1,302 10 0	172 5 0	7 2 9	0 4 11	0 12 6	1,482 15 2	6 9 2
	Buildings .....	—	113 2 6	59 1 2	6 17 8	—	—	179 1 4	0 15 8
	Rolling-stock .....	—	25 5 0	81 12 7	2 13 6	—	—	109 11 1	0 9 7
	Machinery, tools, &c. ....	—	63 11 11	14 18 8	1 10 0	—	—	80 0 7	0 7 0
	Water, fuel, &c. ....	—	9 16 0	1 1 10	—	—	—	10 17 10	0 1 0
	Gross total .....	—	11,811 15 10	806 5 11	34 14 0	4 16 0	41 8 0	12,698 19 9	55 8 3
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	11,811 15 10	806 5 11	34 14 0	4 16 0	41 8 0	12,698 19 9	55 8 3
SUM									

NOTE.—The Aggregate Total shown on this Return is the *Actual* Expenditure incurred during the year. That shown on the Return furnished by Adelaide, June 30th, 1891.

## DEPARTMENT.

LINES—continued.

AND RENEWAL FOR the YEAR ENDING JUNE 30TH, 1891.

RENEWAL ACCOUNT.

Sft. 6in.

EXTRAORDINARY REPAIRS AND RENEWALS.								TOTALS.		
Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	AGGREGATE TOTAL.	Average Cost per Mile of Single Line, including Sidings.	Average Cost per Mile of Railway.
\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.	\$ s. d.
—	—	—	—	—	—	—	—	576 0 11	7 1 1	7 8 1
—	—	—	—	—	—	—	—	131 5 8	1 12 2	1 13 9
—	0 18 6	1 3 2	—	—	—	2 1 8	0 0 6	3,124 2 9	38 5 0	40 8 1
—	46 17 6	31 13 8	—	—	—	78 11 2	0 19 3	523 3 1	6 8 1	6 14 6
—	0 3 2	0 4 1	—	—	—	0 7 3	0 0 1	52 14 5	0 12 11	0 13 7
—	—	—	—	—	—	—	—	41 16 4	0 10 3	0 10 9
—	—	—	—	—	—	—	—	5 12 1	0 1 4	0 1 5
—	417 18 4	180 12 1	—	—	—	548 10 5	6 14 4	553 18 1	6 15 8	7 2 5
—	465 17 6	163 13 0	—	—	—	629 10 6	7 14 2	5,008 13 4	61 6 6	64 7 7
—	0 14 2	0 4 1	—	—	—	0 18 3	0 0 3	0 18 3	0 0 3	0 0 3
—	465 3 4	163 8 11	—	—	—	628 12 3	7 13 11	5,007 15 1	61 6 3	64 7 4
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	526 3 10	9 9 0	10 2 2
—	—	—	—	—	—	—	—	87 3 8	1 11 4	1 13 6
—	0 10 9	0 15 3	—	—	—	1 6 0	0 0 6	2,122 18 7	38 2 6	40 15 10
—	31 6 0	46 3 1	—	—	—	77 9 1	1 7 10	410 19 3	7 7 7	7 17 11
—	—	—	—	—	—	—	—	31 3 0	0 11 2	0 12 0
—	—	—	—	—	—	—	—	41 11 2	0 14 11	0 15 11
—	5 19 9	14 1 5	—	—	—	20 1 2	0 7 2	34 5 6	0 12 3	0 13 2
—	—	—	—	—	—	—	—	0 10 0	0 0 2	0 0 2
—	37 16 6	60 19 9	—	—	—	98 16 3	1 15 6	3,254 15 0	58 8 11	63 10 8
—	3 8 0	4 10 10	—	—	—	7 19 7	0 2 10	7 19 7	0 2 10	0 3 1
—	34 7 9	56 8 11	—	—	—	90 16 8	1 12 8	3,246 15 5	58 6 1	62 7 7
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	568 9 6	6 3 10	6 12 5
—	—	—	—	—	—	—	—	142 6 2	1 11 0	1 13 2
—	0 4 0	—	—	—	—	0 4 0	0 0 1	3,561 14 4	38 16 0	41 9 6
—	39 3 1	14 17 0	—	—	—	54 0 1	0 11 9	758 13 2	8 5 3	8 18 8
—	0 15 0	0 10 6	—	—	—	1 5 6	0 0 3	96 16 9	1 1 1	1 2 7
—	—	—	—	—	—	—	—	28 3 7	0 5 9	0 6 1
—	—	—	—	—	—	—	—	60 4 4	0 13 1	0 14 0
—	—	—	—	—	—	—	—	5 0 2	0 1 1	0 1 2
—	40 2 1	15 7 6	—	—	—	55 9 7	0 12 1	5,219 7 9	56 17 1	60 15 7
—	2 19 6	0 4 2	—	—	—	3 3 8	0 0 8	3 3 8	0 0 8	0 0 8
—	37 2 7	15 3 4	—	—	—	52 5 11	0 11 5	5,216 4 1	56 16 5	60 14 11

## MARY.

—	—	—	—	—	—	—	—	1,670 14 3	7 5 10	7 15 0
—	—	—	—	—	—	—	—	260 15 6	1 11 6	1 13 5
—	1 13 3	1 18 5	—	—	—	3 11 8	0 0 3	3,808 15 8	38 8 9	40 17 2
—	117 6 7	92 12 9	—	—	—	210 0 4	0 18 4	1,692 15 6	7 7 6	7 17 1
—	0 18 2	0 14 7	—	—	—	1 12 9	0 0 2	180 14 1	0 15 10	0 16 9
—	—	—	—	—	—	—	—	109 11 1	0 9 7	0 10 2
—	5 19 9	14 1 5	—	—	—	20 1 2	0 1 10	100 1 9	0 8 10	0 9 4
—	417 18 4	180 12 1	—	—	—	548 10 5	2 7 10	559 8 3	2 8 10	2 11 10
—	543 16 1	240 0 3	—	—	—	783 16 4	3 8 5	13,482 16 1	58 16 8	62 10 9
—	7 2 5	4 19 1	—	—	—	12 1 6	0 1 0	12 1 6	0 1 0	0 1 1
—	536 13 8	235 1 2	—	—	—	771 14 10	3 7 5	13,470 14 7	58 15 8	62 9 8

the Comptroller is the Net Expenditure brought to Debit during the year. This accounts for apparent discrepancy between the two Returns.

ALEX. B. MONCRIEFF, Engineer-in-Chief.



D—RETURN OF PERMANENT WAY MATERIAL  
Gauge.

No. of District.	Brand.	Rails Used.										Brand.	Rails Removed.											
		Weight.	Length.	Iron Rails.				Steel Rails.					Weight.	Length.	Iron Rails.				Steel Rails.					
				Broken.	Defective.	Worn out.	Total.	Broken.	Defective.	Worn out.	Total.				Broken.	Defective.	Worn out.	Total.						
		lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.		lbs.	ft. in.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1	Barrow Steel 4 Mo 1880	35	20 11	—	—	—	—	—	1	—	1	Barrow Steel 4 Mo 1880	35	20 11	—	—	—	—	—	1	—	1	—	—
2	S. A. R., S. J. & R., Stockton, 1873	—	20 0	2	—	11	13	—	—	—	—	S. A. R., S. J. & R., Stockton	—	20 0	2	—	11	13	—	—	—	—	—	—
3	Barrow Steel XII. Mo Hopkins, Gilkes, and Co., 1877 Hopkins, Gilkes, and Co., 1878 T. I. & C. Co., Ltd., 1877	—	21 3	—	—	—	—	—	—	37	37	T. I. & C. Co., Ltd., 1877	—	22 0	—	1	7	8	—	—	—	—	—	—
			19 3	1	—	—	1	—	—	—	—	—	—	21 0	2	—	47	47	—	—	—	—	—	
			16 6	—	1	—	1	—	—	—	—	—	—	21 0	2	—	47	47	—	—	—	—	—	
			20 0	1	—	19	20	—	—	—	—	—	—	22 0	—	—	2	2	—	—	—	—	—	
	Totals .....	—	—	4	1	30	35	—	1	37	38	—	—	—	4	—	67	70	—	1	—	—	—	
ORDINARY REPAIR.																								
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Totals .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
EXTRAORDINARY REPAIR.																								
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Totals .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Adelaide, June 30th, 1891.

E—STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION OF  
Gauge.

		Rate of Pay.		Resident Engineer.	Res. Engineer's Assistant.	Surveyor.	Draughtsmen.	Clerks.	District Foreman	Foremen Works and Buildings.	Gangers.	Fitters.
District No. 1.		\$450 per ann.....	—	—	—	—	—	—	—	—	—	—
Length.		\$180 ".....	—	—	—	—	—	—	—	—	—	—
Main line.....	77m. 53c.	18/- per diem.....	—	—	—	—	—	—	—	—	—	—
Sidings.....	3m. 70c.	10/- ".....	—	—	—	—	—	—	—	—	—	—
Total.....		9/- ".....	—	—	—	—	—	—	—	—	—	—
		8/- ".....	—	—	—	—	—	—	—	—	—	—
		7/- ".....	—	—	—	—	—	—	—	—	—	—
		6/8 ".....	—	—	—	—	—	—	—	—	—	—
		6/6 ".....	—	—	—	—	—	—	—	—	—	—
Total .....		—	—	—	—	—	—	—	—	—	—	—
District No. 2.		\$450 per ann.....	—	—	—	—	—	—	—	—	—	—
Length.		\$180 ".....	—	—	—	—	—	—	—	—	—	—
Main line.....	52m. 4c.	18/- per diem.....	—	—	—	—	—	—	—	—	—	—
Sidings.....	3m. 51c.	10/- ".....	—	—	—	—	—	—	—	—	—	—
Total.....		9/- ".....	—	—	—	—	—	—	—	—	—	—
		8/- ".....	—	—	—	—	—	—	—	—	—	—
		7/- ".....	—	—	—	—	—	—	—	—	—	—
		6/8 ".....	—	—	—	—	—	—	—	—	—	—
		6/6 ".....	—	—	—	—	—	—	—	—	—	—
Total .....		—	—	—	—	—	—	—	—	—	—	—
District No. 3.		\$450 per ann.....	—	—	—	—	—	—	—	—	—	—
Length.		\$180 ".....	—	—	—	—	—	—	—	—	—	—
Main line.....	85m. 70c.	18/- per diem.....	—	—	—	—	—	—	—	—	—	—
Sidings.....	5m. 74c.	10/- ".....	—	—	—	—	—	—	—	—	—	—
Total.....		9/- ".....	—	—	—	—	—	—	—	—	—	—
		8/- ".....	—	—	—	—	—	—	—	—	—	—
		7/- ".....	—	—	—	—	—	—	—	—	—	—
		6/8 ".....	—	—	—	—	—	—	—	—	—	—
		6/6 ".....	—	—	—	—	—	—	—	—	—	—
Total .....		—	—	—	—	—	—	—	—	—	—	—
SUMMARY.		Total .....	—	—	—	—	—	—	—	—	—	—
Length.		—	—	—	—	—	—	—	—	—	—	—
Main line .....	215m. 47c.	—	—	—	—	—	—	—	—	—	—	—
Sidings .....	13m. 35c.	—	—	—	—	—	—	—	—	—	—	—
Total.....		229m. 13c.	—	—	—	—	—	—	—	—	—	—
Total No. Men .....		—	1-00	1-00	—	—	—	1-00	3-00	—	29-09	—

Adelaide, June 30th, 1891.

## DEPARTMENT.

LINES—continued.

FOR YEAR ENDING JUNE 30TH, 1891.

3ft. 6in.

Rails Reversed.		Switches.						Crossings.						Fastenings.				Sleepers.								
Iron.	Steel.	Complete Switch.	Stock Rails.	Switch Blades.	Chairs.	Lever.	Connecting Rods or Spreaders.	Crossings Complete.	Wing Rails.	Frog Rails.	Guard Rails.	Blocks.	Bolts.	Fishplates.	Fishbolts.	Dogspikes.	Fangbolts.	Redgum.	Jarrah.	Bluegum.	Sugargum.	Karri.	Other Timber.	Long Sleepers.	Ballast.	
No.	No.	Set	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	cu. yds.	
AND RENEWALS.																										
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	222	—	12	—	—	—	—	—	377	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	478	592	—	169	230	—	—	—	—	206	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	78	284	357	8	38	—	—	—	—	—	—	1,048	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	78	822	1,171	8	218	230	—	—	—	—	—	1,633	
AND RENEWALS.																										
—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

ALEX. B. MONCRIEFF, Engineer-in-Chief.

## PERSONS EMPLOYED ON MAINTENANCE FOR THE YEAR ENDING JUNE 30TH, 1891.

3ft. 6in.

Smiths.	Strikers.	Platelayers.	Packers.	Carpenters.	Masons.	Plumbers.	Painters.	Watchmen.	Chainmen.	Enginemen.	Timekeepers.	Laborers.	Youths.	Boys.	Total.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	08
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	31
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1072
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	392
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1669
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3391
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	09
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	672
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	763
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	612
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2399
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	08
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1165
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1294
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1291
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4000
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9690

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

R—No. 47.

ENGINEER-IN-CHIEF'S DEPARTMENT.  
NORTHERN TERRITORY SYSTEM.  
PALMERSTON AND PINE CREEK LINE.

**A**—RETURN OF AMOUNTS EXPENDED ON WORKS OF CONSTRUCTION DURING THE YEAR ENDING  
JUNE 30TH, 1891.  
Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	
CAPITAL ACCOUNT.				
District No. 1.				
Palmerston .....	Supply and erection of signals .....	5340	200 5 8	Not completed
	Bell and lamp room .....	pt. 5579	96 4 10	Completed
Port Darwin Jetty ..	Outer moorings .....	3527	208 3 3	Not completed
	Moorings on jetty .....	5586	76 5 3	Completed
	Footpath to jetty .....	5935	33 8 8	Completed
	Moving rails to edge of jetty .....	6005	24 0 4	Completed
	Fixing steam hoist as jetty crane .....	6092	78 18 8	Completed
Loco. Yard .....	Shelves in loco. store .....	5928	22 18 8	Completed
	Extending track of timber shed .....	6506	30 19 6	Completed
3½ miles .....	Cattle loading arrangements .....	pt. 6059	125 0 0	Completed
Southport-road .....	Water supply .....	4148	149 9 0	Not completed
Whole district .....	Supply of maintenance plant and tools .....	pt. 5457	180 0 0	Not completed
	Pitching slopes of ballast .....	pt. 5890	27 16 0	Not completed
	Land and compensation .....	2679	1,544 5 2	Completed
	Enclosing verandahs with bamboos .....	5374	452 7 1	Not completed
	Total .....	—	3,260 2 1	
District No. 2.				
Adelaide River .....	Water supply .....	4149	** 36 12 4	Not completed
Howley .....	Water supply .....	4150	741 6 6	Not completed
Fountain Head .....	Cattle loading arrangements .....	pt. 6059	134 7 11	Completed
Burrundie .....	Supply and erection of signals .....	5341	332 3 11	Completed
Pine Creek .....	Water supply .....	4921	148 5 9	Not completed
	Supply and erection of signals .....	5342	176 10 7	Completed
	Lamp room .....	pt. 5579	79 3 11	Completed
Whole district .....	Supply of maintenance plant and tools .....	pt. 5457	209 6 0	Not completed
	Pitching slopes of ballast .....	pt. 5890	156 1 10	Completed
	Enclosing verandahs with bamboos .....	5374	452 7 2	Not completed
			2,466 5 11	
CREDIT—				
Adelaide River .....	Temporary pump from water supply .....	4149	47 16 0	
	Total .....	—	2,418 9 11	
	Aggregate total £5,678 12s. 0d.			
Miscellaneous.				
	General expenses—Engineering and supervision .....	2651	450 0 3	
	Storekeeper's salary .....	5066	9 14 5	
	Repairing wagons .....	5864	72 15 5	
	Purchase of ballast wagons .....	6502	1,120 0 0	
	Total .....	—	1,652 10 1	

Adelaide, June 30th, 1891.

\*\* Credits.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER

## ENGINEER-IN-CHIEF'S DEPARTMENT.

## PALMERSTON AND PINE CREEK LINE.

**B**—DESCRIPTION OF EXTRAORDINARY WORKS OF REPAIRS AND RENEWALS FOR YEAR ENDING  
JUNE 30TH, 1891.

Gauge, 3ft. 6in.

Station or Mileage.	Description of Works.	D.O.	Total Cost.	State if Completed.
		No.	£ s. d.	

## MAINTENANCE AND RENEWAL ACCOUNT.

## District No. 1.

Palmerston .....	†Repairing jetty damaged .....	A 4	** 18 8 1	Completed
	Water service to jetty .....	pt. C. 2582	13 4 7	Not completed
	+Repairing bonded store .....	A 6	** 0 5 0	
	†Repairing eyebolts, switches .....	pt. C. 2515	0 9 1	Not completed
22-mile .....	†Repairing maintenance cottages .....	pt. C. 2515	1 13 9	Not completed
38 mile .....	†Repairing maintenance cottages .....	A 3	** 0 6 5	Not completed
25-mile to 44-mile ..	†Repairing line .....	C. 2870	602 0 3	Not completed
Whole districts .....	Laying steel sleepers at level crossing .....	C. 2582	29 16 11	Not completed
			666 4 1	
	<b>CREDITS—</b>			
Palmerston .....	Repairing jetty .....	A 4	18 8 1	
	Repairing bonded store .....	A 6	0 5 0	
38 miles .....	Repairing maintenance cottages .....	A 3	0 6 5	
			18 19 6	
	Total .....	—	647 4 7	

## District No. 2.

Union .....	Stop blocks on passenger siding .....	pt. C. 2582	8 19 1	Not completed
139¼-mile .....	Stop block on Millar's siding .....	A 5	** 4 7 4	Completed
			13 6 5	
	<b>CREDIT—</b>			
139¼-mile .....	Stop block Millar's siding .....	A 5	4 7 4	
	Total .....	—	8 19 1	
	Aggregate total £656 3s. 8d.			

\*\* Credits.

+ Damaged by accident.

‡ Damaged by floods.

Adelaide, June 30th, 1891.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

C—RETURN OF COST OF WORKS OF MAINTENANCE  
MAINTENANCE AND  
Gauge,

Mileage.	ORDINARY AND CURRENT REPAIRS.								
	Sub-head.	Contract.	Labor.	Stores and Material.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
District No. 1. Main line ..... 78m. 40c. Sidings ..... 4m. 45c. Double switches, No. 2 Single switches, No. 67	General expenses—								
	Engineering and supervision .....	—	765 12 7	10 11 2	—	—	—	776 3 9	9 11 6
	Sick and recreation leave.....	—	29 8 0	—	—	—	—	29 8 0	0 7 3
	Way .....	—	2,023 5 4	10 2 4	20 15 0	—	—	2,054 2 8	25 6 10
	Works .....	—	1,199 18 9	47 18 4	4 2 9	—	—	1,251 19 10	15 9 11
	Buildings .....	—	35 8 7	20 8 9	—	—	—	55 17 4	0 13 9
	Rolling-stock .....	—	0 4 0	1 17 10	1 9 3	—	—	3 11 1	0 0 11
	Machinery, tools, &c.....	—	—	4 11 10	—	—	—	4 11 10	0 1 1
	Water, fuel, &c.....	—	1 15 6	—	—	—	—	1 15 6	0 0 3
	Gross total .....	—	4,055 12 9	95 10 3	26 7 0	—	—	4,177 10 0	51 11 8
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	4,055 12 9	95 10 3	26 7 0	—	—	4,177 10 0	51 11 8
District No. 2. Main line ..... 69m. 48c. Sidings ..... 3m. 14c. Double switches, No. 18 Single switches, No. 6	General expenses—								
	Engineering and supervision .....	—	765 12 7	10 11 1	—	—	—	776 3 8	10 13 5
	Sick and recreation leave.....	—	19 8 6	—	—	—	—	19 8 6	0 5 4
	Way .....	—	2,127 18 3	13 5 7	13 3 3	—	—	2,154 7 1	23 12 4
	Works .....	—	776 11 8	9 4 11	2 11 0	—	—	788 7 7	10 16 8
	Buildings .....	—	12 17 2	3 6 5	—	—	—	16 3 7	0 4 5
	Rolling-stock .....	—	1 0 0	1 16 1	2 5 6	—	—	5 1 7	0 1 4
	Machinery, tools, &c.....	—	—	—	—	—	—	—	—
	Water, fuel, &c.....	—	23 5 0	0 6 5	—	—	—	23 11 5	0 6 6
	Gross total .....	—	3,726 13 2	38 10 6	17 19 9	—	—	3,783 3 5	52 0 0
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	3,726 13 2	38 10 6	17 19 9	—	—	3,783 3 5	52 0 0
Main line ..... 146m. 8c. Sidings ..... 7m. 59c. Double switches, No. 20 Single switches, No. 73	General expenses—								
	Engineering and supervision .....	—	1,551 5 2	21 2 3	—	—	—	1,552 7 5	10 1 10
	Sick and recreation leave.....	—	48 16 6	—	—	—	—	48 16 6	0 6 4
	Way .....	—	4,151 3 7	23 7 11	33 18 3	—	—	4,208 9 9	27 7 2
	Works .....	—	1,976 10 5	57 3 3	6 13 9	—	—	2,040 7 5	13 5 3
	Buildings .....	—	48 5 9	23 15 2	—	—	—	72 0 11	0 9 4
	Rolling-stock .....	—	1 4 0	3 13 11	3 14 9	—	—	8 12 8	0 1 1
	Machinery, tools, &c.....	—	—	4 11 10	—	—	—	4 11 10	0 0 7
	Water, fuel, &c.....	—	23 0 6	0 6 5	—	—	—	25 6 11	0 3 3
	Gross total .....	—	7,782 5 11	134 0 9	44 6 9	—	—	7,960 13 5	51 14 10
	Reimbursements .....	—	—	—	—	—	—	—	—
	Net total .....	—	7,782 5 11	134 0 9	44 6 9	—	—	7,960 13 5	51 14 10
SUM									

NOTE.—The Aggregate Total shown in this Return is the Actual Expenditure incurred for the year. That shown on the Return furnished by Adelaide, June 30th, 1891.

DEPARTMENT.

CREEK LINES—continued.

AND RENEWAL FOR THE YEAR ENDING JUNE 30TH, 1891.  
RENEWAL ACCOUNT.

3ft. 6in.

EXTRAORDINARY REPAIRS AND RENEWALS.								TOTALS.		
Contract.	Labor.	Stores and Materials.	Repairs to Tools, &c.	Traffic Charges.	Loco. Charges.	TOTAL.	Average Cost per Mile of Single Line, including Sidings.	AGGREGATE TOTAL.	Average Cost per Mile of Single Line, including Sidings.	Average Cost per Mile of Railway.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
—	—	—	—	—	—	—	—	776 3 9	9 11 6	10 2 11
—	—	—	—	—	—	—	—	29 8 0	0 7 3	0 7 8
—	83 19 1	118 16 11	—	—	—	202 16 0	2 10 0	2,356 18 8	27 16 10	29 10 1
—	222 18 8	238 4 8	—	—	—	461 2 11	5 13 9	1,713 2 9	21 3 8	22 7 11
—	1 8 6	0 16 8	—	—	—	2 5 2	0 0 7	58 2 6	0 14 4	0 15 2
—	—	—	—	—	—	—	—	3 11 1	0 0 11	0 0 11
—	—	—	—	—	—	—	—	4 11 10	0 1 1	0 1 2
—	—	—	—	—	—	—	—	1 15 6	0 0 5	0 0 6
—	308 6 3	357 17 10	—	—	—	666 4 1	8 4 4	4,843 14 1	59 16 0	63 6 4
—	4 16 0	14 2 6	—	—	—	18 19 6	0 4 8	18 19 6	0 4 8	0 5 0
—	303 10 3	343 14 4	—	—	—	647 4 7	7 19 8	4,824 14 7	59 11 4	63 1 4
—	—	—	—	—	—	—	—	776 3 8	10 13 5	11 2 8
—	—	—	—	—	—	—	—	19 8 6	0 5 4	0 5 7
—	6 16 9	6 9 8	—	—	—	13 6 5	0 3 8	2,167 13 6	29 16 0	31 2 0
—	—	—	—	—	—	—	—	788 7 7	10 16 8	11 6 8
—	—	—	—	—	—	—	—	16 3 7	0 4 5	0 4 8
—	—	—	—	—	—	—	—	5 1 7	0 1 4	0 1 5
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	23 11 5	0 6 6	0 6 9
—	6 16 9	6 9 8	—	—	—	13 6 5	0 3 8	3,796 9 10	52 3 8	54 9 4
—	2 5 7	2 1 9	—	—	—	4 7 4	0 1 2	4 7 4	0 1 2	0 1 4
—	4 11 2	4 7 11	—	—	—	8 19 1	0 2 6	3,792 2 6	52 2 6	54 8 0

MARY.

—	—	—	—	—	—	—	—	1,552 7 5	10 1 10	10 12 5
—	—	—	—	—	—	—	—	48 16 6	0 6 4	0 6 8
—	90 15 10	125 6 7	—	—	—	216 2 5	1 8 1	4,424 12 2	28 15 3	30 5 3
—	222 18 8	238 4 8	—	—	—	461 2 11	3 0 0	2,501 10 4	18 5 3	17 2 2
—	1 8 6	0 16 8	—	—	—	2 5 2	0 0 4	74 6 1	0 9 8	0 10 2
—	—	—	—	—	—	—	—	8 12 8	0 1 1	0 1 2
—	—	—	—	—	—	—	—	4 11 10	0 0 7	0 0 8
—	—	—	—	—	—	—	—	35 6 11	0 3 3	0 3 6
—	315 3 0	364 7 6	—	—	—	679 10 6	4 8 5	8,640 3 11	56 3 3	59 2 0
—	7 1 7	16 5 3	—	—	—	23 6 10	0 3 0	23 6 10	0 3 0	0 3 2
—	306 1 5	348 2 3	—	—	—	656 3 8	4 5 5	8,616 17 1	56 0 8	58 18 10

the Comptroller is the *Net* Expenditure brought to Debit during the year. This accounts for the apparent discrepancy between the *two* Returns.

ALEX. B. MONCRIEFF, Engineer-in-Chief.

ENGINEER-IN-CHIEF'S  
WAY AND WORKS

F—STATEMENT SHOWING THE AVERAGE NUMBER AND CLASSIFICATION

Rate of Pay.	Inspector of Block Signals.	Turners.	Riveters.	Boltermakers.	Clerks.	Machinists.	Foreman.	Foremen Works and Buildings.	Gangers.	Coppersmith.	Tinsmith	Fitters.
£210 per annum .....	—	—	—	—	·41	—	—	—	—	—	—	—
£200 " .....	1·00	—	—	—	—	—	—	—	—	—	—	—
15s. per diem .....	—	—	—	—	—	—	—	1·00	—	—	—	·37
14s. " .....	—	—	—	—	—	—	1·00	·32	—	—	—	1·44
13s. " .....	—	—	—	—	—	—	—	—	—	—	—	—
12s. " .....	—	—	—	—	1·00	—	—	—	—	—	—	·17
11s. " .....	—	—	—	·96	—	—	—	—	—	—	—	—
10s. 8d. " .....	—	—	—	—	—	—	—	—	—	—	—	1·58
10s. 6d. " .....	—	1·01	—	·73	·36	—	—	—	—	—	—	3·43
10s. " .....	—	·17	—	—	—	—	—	—	—	—	—	·48
9s. 6d. " .....	—	—	—	—	—	—	—	—	—	·37	·96	6·72
9s. " .....	—	—	—	—	—	—	—	—	—	—	—	·36
8s. 6d. " .....	—	—	—	—	·22	·31	—	—	—	—	—	4·43
8s. " .....	—	—	—	1·05	—	—	—	—	—	—	2·02	·18
7s. 6d. " .....	—	·90	—	—	·81	·70	—	—	1·86	—	·13	·92
7s. " .....	—	—	·34	—	1·05	—	—	—	·92	—	—	—
6s. 8d. " .....	—	—	·59	—	—	—	—	—	—	—	—	—
6s. 6d. " .....	—	—	—	—	—	—	—	—	—	—	—	—
6s. " .....	—	—	—	—	—	—	—	—	—	—	—	—
5s. " .....	—	—	—	—	·74	—	—	—	—	—	—	—
4s. 6d. " .....	—	—	—	—	—	—	—	—	—	—	—	—
4s. 2d. " .....	—	—	—	—	—	—	—	—	—	—	—	—
4s. " .....	—	—	—	—	—	—	—	—	—	—	—	—
3s. 6d. " .....	—	—	—	—	1·02	—	—	—	—	—	—	—
3s. 4d. " .....	—	—	—	—	—	—	—	—	—	—	—	—
3s. " .....	—	—	—	—	—	—	—	—	—	—	—	—
2s. 6d. " .....	—	—	—	—	·97	—	—	—	—	—	—	—
2s. " .....	—	—	—	—	—	—	—	—	—	—	—	—
1s. " .....	—	—	—	—	—	—	—	—	—	—	—	—
0s. " .....	—	—	—	—	—	—	—	—	—	—	—	—
Totals .....	1·00	2·08	·93	2·74	6·68	1·01	1·00	1·32	2·78	·37	3·11	20·08

## DEPARTMENT.

## SHOPS, GLANVILLE.

## OF PERSONS EMPLOYED FOR THE YEAR ENDING JUNE 30TH, 1891.

Smiths.	Strikers.	Plasterers.	Carpenters.	Masons.	Plumbers.	Painters.	Watchmen.	Pipelayers.	Drillers.	Engineers.	Linemen.	Laborers.	Youths.	Apprentices.	Total.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.41
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.00
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.69
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.44
1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.00
.92	—	—	2.25	—	—	—	—	—	—	—	—	—	—	—	4.80
—	—	—	.96	—	—	—	—	—	—	—	—	—	—	—	.96
.94	—	—	.11	.49	1.00	—	—	—	—	—	—	—	—	—	5.13
1.24	—	—	1.68	.47	—	—	—	—	—	—	—	—	—	—	8.08
.94	—	.15	2.54	3.60	—	—	—	—	—	—	—	—	—	—	7.71
.81	—	—	9.95	—	.98	.93	—	—	—	—	—	—	—	—	20.72
.97	—	—	.96	—	—	1.03	—	—	—	.40	—	—	—	—	4.25
.35	—	—	1.44	—	.61	.14	—	—	—	1.00	—	—	—	—	11.04
.94	—	—	1.08	—	1.01	—	—	—	—	.42	.34	—	—	—	8.37
.47	4.92	—	1.40	—	.95	2.31	—	.91	1.01	—	—	1.44	—	—	16.64
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.59
—	2.14	—	—	—	—	—	—	—	—	—	—	14.86	—	—	17.00
—	.39	—	—	—	—	—	1.00	—	—	—	—	35.10	—	—	36.49
—	—	—	—	—	—	—	—	—	—	—	—	—	.62	—	1.36
—	—	—	—	—	—	—	—	—	—	—	—	—	.35	—	.35
—	—	—	—	—	—	—	—	—	—	—	—	—	.11	—	.11
—	—	—	—	—	—	—	—	—	—	—	—	—	2.19	—	2.19
—	—	—	—	—	—	—	—	—	—	—	—	—	3.11	—	4.13
—	—	—	—	—	—	—	—	—	—	—	—	—	.58	—	.58
—	—	—	—	—	—	—	—	—	—	—	—	—	1.59	—	1.59
—	—	—	—	—	—	—	—	—	—	—	—	—	1.36	.31	1.67
—	—	—	—	—	—	—	—	—	—	—	—	—	3.65	1.13	5.75
—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.60	1.60
—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.00	7.00
8.58	7.45	.15	22.37	4.56	4.55	4.41	1.00	.91	1.01	1.82	.34	51.40	13.56	10.04	175.15





## REPORT ON PUBLIC SUPPLY DEPARTMENT.

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Port Adelaide, November 11th, 1891.

Gentlemen—The work of concentrating, as far as possible, all stores belonging to the various branches of the Public Service at the new depôt at Port Adelaide has been accomplished during the last twelve months.

The removal of the whole of the railway stores was completed by October last year, and the office staff transferred at the end of that month to the new offices erected there. The water conservation materials and stores, and the reserve stores belonging to the Waterworks and Post and Telegraph Departments, are also now at Port Adelaide.

This desirable change has enabled me to carry out the work of the department more economically and satisfactorily.

The offices for the clerical staff are spacious and comfortable, and will meet all requirements for many years to come. The buildings provided for the storage of materials have, however, proved insufficient, and, as a consequence, a large quantity of stores which should be under cover are now exposed to the weather; and I recommend that steps be taken early to provide further shed accommodation.

I would also point out that the position of the yard, from its proximity to the sea, is very unsuitable for storing iron and steel goods in the open air. It is already found that the saline atmosphere is having a deteriorating effect upon this class of materials which have been in the yard for some time.

From the 1st July, 1890, the whole cost of the staff and the working expenses have been provided for on the Estimates, instead of the portion only chargeable to railways as in the past. The system of charging a percentage on all issues of stores to cover the cost of the department has therefore been discontinued. From the 1st April a change was made in taking over from the Comptroller of Accounts the duty of paying accounts for purchases made by this department, and collection of all sums due for stores, &c., sold. This has entailed a large amount of extra work and necessitated an increase of the staff.

The value of issues to maintenance of railways amounts to £205,189 3s. 4d; and to construction of railways, other Government departments, and private sales, £205,942 2s.; making a total of £411,131 5s. 4d.

The cost of stores in hand, as shown by the Treasury accounts on 30th June, 1891, was £428,728. This includes stores taken over from the Waterworks, Sewers, and Water Conservation, and represents not only the cost of the stores at Port Adelaide, but also suspense stores at the Adelaide, Islington, and Glanville workshops, the various country depôts in connection with railways and waterworks, and also the waterworks, Kent Town. The cost of the stores at these various depôts which are held as suspense stores was, approximately, £235,549. This includes reserve stock of coal and firewood on all systems, valued at £23,616.

The statement of materials imported from England for the year ending 30th June, 1891, will be found on pages 74-7

I have, &c.,

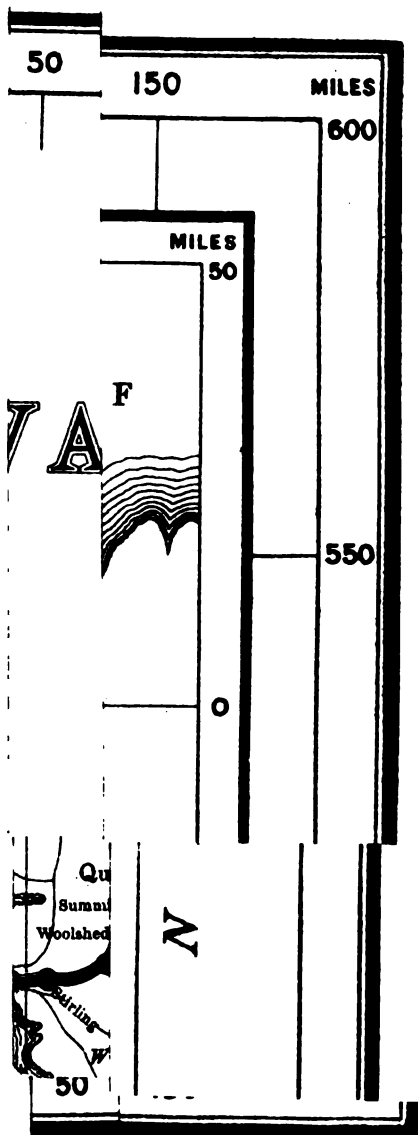
To the Railway Commissioners.

THOS. COLEBATCH, Chief Storekeeper.



**Comparative Cost of Maintenance & Renewal of Way, Works, Buildings, Machinery, &c.**

TO ACCOMPANY ANNUAL REPORT OF ENGINEER-IN-CHIEF FOR THE YEAR ENDING JUNE 30TH, 1891.





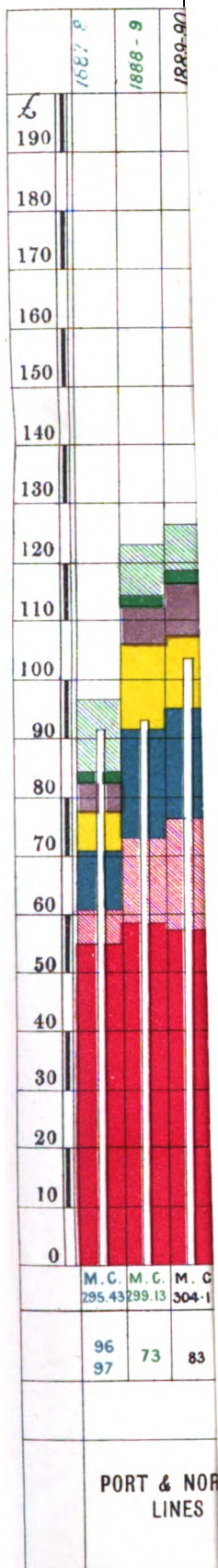
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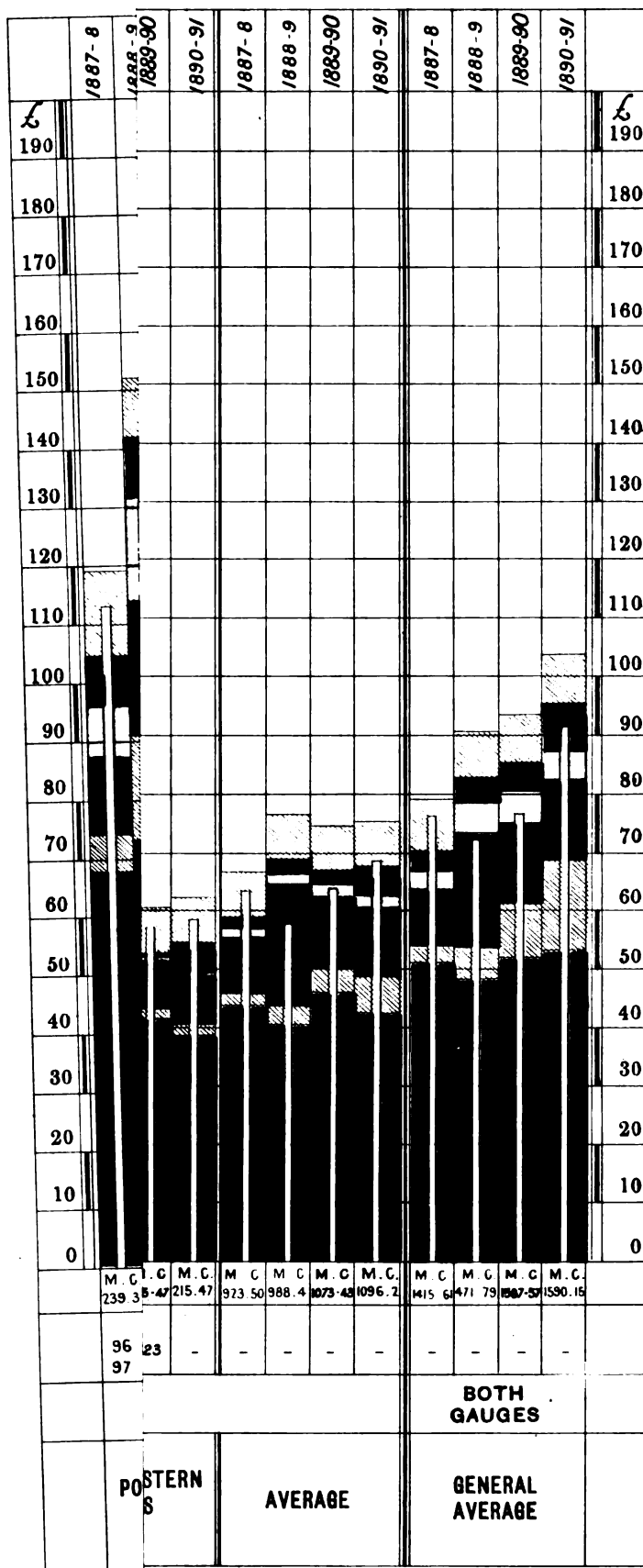
THE YEAR ENDING JUNE 30TH,

of Ordinary Maintena  
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Adelaide, June



Machinery

Alex. B. Moncrieff, Engineer-in-Chief.

ded in Miscellaneous





















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